NEW APPLICATION

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BEFORE THE ARIZONA CORPORATION COMMISSION

W-03512A-03-0279

IN THE MATTER OF THE APPLICATION OF PINE WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE AND FOR APPROVAL TO INCUR LONG-TERM DEBT

DOCKET NO: W-03512A-03-__

APPLICATION

Pine Water Company, an Arizona public service corporation ("Pine Water" or "the Company"), hereby applies for an order establishing the fair value of its plant and property used for the provision of public utility service and, based on such fair value, approving permanent rates and charges for utility service provided by the Company and designed to produce a fair return thereon. In addition, Pine Water seeks approval to incur long-term indebtedness in the amount of $178,000. In support thereof, Pine Water states as follows:

1. Pine Water is a public service corporation engaged in providing water utility services in portions of Northern Gila County, Arizona, pursuant to certificates of public convenience and necessity granted by the Arizona Corporation Commission (the "Commission") to Pine Water and its predecessors in interest. At the present time, the Company provides utility service to nearly 2000 customers in Arizona.

2. The Company's central business office is located at 3101 State Rd., Bakersfield, California 93308 and its telephone number is (661) 633-7546. The Company's President and primary management contact is Robert T. Hardcastle. The Company's Arizona operations center is located at 1011 So. Stover Rd, Payson, Arizona 85541 and its telephone number in Payson is 928-474-8130. Dean Schaffer is responsible for overseeing Pine Water's operations in Gila County. Mr. Hardcastle is responsible for overseeing and directing the conduct of this rate application. **All discovery, data requests and other requests for information concerning this Application should be directed to Mr. Hardcastle, with a copy to undersigned counsel for the Company.**

3. In this Application, the Company seeks a determination of the current, fair value of its property devoted to public service and approval of permanent adjustments to its rates and charges for utility service based thereon.

4. The Company's current rates were approved in Decision No. 62400 (E&R Water Co., Inc.) on March 28, 2000 and went into effect on April 1, 2000, and Decision No. 62363 (Williamson Waterworks, Inc.) on March 6, 2000 and went into effect on April 1, 2000.[1]

5. Pine Water maintains that revenues from its operations are presently inadequate to provide the Company a fair rate of return on the fair value of its utility plant and property devoted to public service. The Company's rate base has increased since the previous rate proceeding and operating expenses have increased dramatically due in large measure to ongoing water supply problems. These increases have caused the revenues produced by the current rates and charges for service to become inadequate to meet operating expenses and to provide a reasonable rate of return. Therefore, the Company

[1] A few years ago, Pine Water's shareholder, Brooke Utilities, reorganized some seven separate water companies and systems it acquired in 1996 into five separate subsidiaries, including Pine Water and Strawberry Water. The operational and geographical reorganization was approved by the Commission in Decision No. 60972 (July 1998).

requests that certain adjustments to its rates and charges for utility service be approved by the Commission so that the Company may earn a just and reasonable rate of return on the fair value of its property.

6. Filed concurrently herewith as separately bound exhibits included with the Company's direct testimony, are the schedules required pursuant to A.A.C. R14-2-103 for the rate applications by Class "C" water utilities, with the exception of the schedules labeled "G" (cost of service analysis). The latter schedules have been omitted because the Company does not propose to change the allocation of the revenue requirement between customer types, from that approved by the Commission when it established Pine Water's current rates. The test year utilized by the Company in connection with the preparation of such schedules is the 12-month period that ended December 31, 2002. Pine Water requests that the Commission utilize such test year in connection with this Application, with appropriate adjustments for utility plant that has been completed and placed in service to serve existing customers by December 31, 2003, and appropriate adjustments to the Company's operating expenses in order to obtain a normal or more realistic relationship between revenues, expenses and rate base during the period in which the rates established in this proceeding are in effect.

7. During the test year, the Company's adjusted gross revenues were $654,048 and the adjusted operating income was negative $132,713. The adjusted fair value rate base was $680,032. Thus, the rate of return on rate base during the test year was a negative 19.52%. The Company submits that these rates of return are inadequate to allow it to service its debt, pay a reasonable dividend to its stockholders, maintain a sound credit rating, and enable Pine Water to attract additional capital on reasonable and acceptable terms in order to continue the investment in utility plant necessary to adequately serve customers.

8. The Company is requesting an increase in revenues equal to $268,993,

which constitutes an increase in revenues of 41.13%. The adjustments to the Company's rates and charges that are proposed herein, when fully implemented, will produce a rate of return on rate base equal to 10.93 %. In addition, the Company seeks approval to collect a Water Exploration Surcharge to be used in connection with implementation of the Company's Water Supply Augmentation Plan.

9. The Company is also requesting approval to incur $178,000 in long-term indebtedness. Pine Water has an inter-company payable balance of $533,599 to its parent, Brooke Utilities, as of December 31, 2002. This liability has grown appreciably since 1999 and has not been paid. The probability that Pine Water can pay this obligation in a timely manner, even under the proposed rates, is very low. As a consequence, the Company seeks approval to convert $178,000 of the inter-company payable to long-term debt. The Company has also proposed to convert $355,599 of this amount to equity.

10. The Company proposes a five-year note at an interest rate of 10 percent. The conversion will eliminate the negative common equity balance and raise it to over $200,000 and the debt ratio will be reduced from over 70% to approximately 38%. If the conversion to debt and equity sought herein is approved the Company's resulting capital structure will be 46.47% equity and 53.53% debt. If the Company's proposed revenue increases were approved there would be sufficient cash flow by the time loan repayment begins to meet the obligation.

11. Filed concurrently in support of this Application is the following direct testimony:

(a) **Robert T. Hardcastle** (overview of the Company and its current operations, discussion of compliance with Commission Decision No. 65435 (December 9, 2003), specifically, a Water Supply Augmentation Plan and Customer Education Program, discussion of past, present and future capital projects; discussion of conservation measures and overview of the ongoing water

supply problems in and around Pine Water's certificated service area);

(b) **Thomas J. Bourassa** (discussion of the revenue requirement, including the "A" through "F" schedules, development of the rate base and income statement adjustments, cost of equity capital, debt and related issues, proposed rates, including the "H" schedules, and discussion of the effects of the proposed rates on customers' bills).

This direct testimony is contained along with the schedules in a separately bound volume filed with this Application.

WHEREFORE, the Company requests the following relief:

A. That the Commission, upon proper notice and at the earliest possible time, conduct a hearing in accordance with A.R.S. § 40-251 and determine the fair value of Pine Water's utility plant and property devoted to public service;

B. Based upon such determination, that the Commission approve permanent adjustments to the rates and charges for utility service provided by Pine Water, as proposed by the Company herein, or approve such other rates and charges as will produce a just and reasonable rate of return on the fair value of the Company's utility plant and property for these districts;

C. That the Commission issue an order authorizing the Company to incur long-term indebtedness on the terms set forth hereinabove; and

D. That the Commission authorize such other and further relief as may be appropriate to ensure that Pine Water has an opportunity to earn a just and reasonable return on the fair value of their utility plant and property and as may otherwise be required under Arizona law.

RESPECTFULLY SUBMITTED this 1st day of May, 2003.

FENNEMORE CRAIG

By _____
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ORIGINAL and thirteen (13) copies of the foregoing, together with the separately bound schedules and direct testimony supporting this application, were delivered this 1st day of May, 2003, to:

Docketing Supervisor
Docket Control Division
Arizona Corporation Commission
1200 W. Washington St.
Phoenix, AZ 85007

By: _____

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DIRECT TESTIMONY

AND

SCHEDULES

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DIRECT TESTIMONY

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HARDCASTLE

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DIRECT TESTIMONY OF

ROBERT T. HARDCASTLE

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I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND TELEPHONE NUMBER.

A. Robert T. Hardcastle, 3101 State Rd., Bakersfield, California 93308. My telephone number is (661) 633-7526.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am the President of Brooke Utilities, Inc. Brooke Utilities is the sole shareholder of the Applicant, Pine Water Company, Inc. ("Pine Water" or the "Company").

Q. PLEASE BRIEFLY OUTLINE YOUR RESPONSIBILITIES AS PRESIDENT.

A. As the Executive Officer, I am generally responsible for managing all operational, administrative, financial, and regulatory matters of Brooke Utilities and its subsidiaries, Pine Water, Strawberry Water Co., Inc., Payson Water Co., Inc., Tonto Basin Water Co., Inc., Navajo Water Co., Inc., Brooke Water, L.L.C., and Circle City Water Co., L.L.C. Each of these subsidiaries is a public service corporation providing water utility service under regulation by the Arizona Corporation Commission ("Commission").

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE ARIZONA CORPORATION COMMISSION?

A. Yes, on several occasions. Most recently, I testified before the Commission on April 18, 2003 in support of Pine Water's request for approval of a revised Curtailment Tariff and an interim rate surcharge.

II. BACKGROUND ON PINE WATER COMPANY

Q. WHEN DID BROOKE UTILITIES ACQUIRE THE PINE WATER SYSTEM?

A. In August 1996, Brooke Utilities acquired E&R Water Co., Inc. and Williamson

Waterworks, Inc. At that time, the plant serving what is now Pine Water's service area was in a state of nearly total disrepair following years of inadequate investment and neglect. There were literally hundreds of line leaks, storage was woefully inadequate and many of the system's wells were inoperative. These problems served to exacerbate the impacts of water supply shortages in the area.

Q. WHAT HAPPENED TO E&R AND WILLIAMSON WATERWORKS?

A. A few years ago Brooke Utilities reorganized some seven separate water companies and systems it acquired in 1996 into five separate subsidiaries, including Pine Water and Strawberry Water. The operational and geographical reorganization was approved by the Commission in Decision No. 60972 (July 1998).

Q. HOW MANY CUSTOMERS DOES PINE WATER PRESENTLY SERVE?

A. Presently the Company has just under 2,000 customers, although the number was approximately 1850 during the test year. I should note that this recent growth is the result of recent changes in the Commission's orders prohibiting new connections in Pine Water's CC&N, which changes allowed a significant number of new connections from the Company's so-called Waiting Lists. It is not reflective of typical growth rates in the certificated service area.

Q. WHEN DID THE CURRENT RATES GO INTO EFFECT?

A. The Company's current rates were approved in Decision No. 62400 (E&R Water Co., Inc.) on March 28, 2000 and went into effect on April 1, 2000; and Decision No. 62363 (Williamson Waterworks, Inc.) on March 6, 2000, and went into effect on April 1, 2000.

III. <u>PURPOSE OF TESTIMONY, SUMMARY AND CONCLUSIONS</u>

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. To support Pine Water's application for permanent rate relief and financing approval. This application, like the Company's February 2003 requests for approval of an interim rate surcharge and a revised Curtailment Tariff, are essential to Pine Water's financial viability. The Company has experienced operating losses in each of the last three years. Those losses are due primarily to two factors: (1) increased water purchase costs since the implementation of Project Magnolia in 2001, subsequent to the Company's last rate proceeding; and (2) unrecovered water hauling expenses due to critical water supply shortages in three of the last four years. As a consequence, the Company is in substantial need of permanent rate relief.

Q. WHAT DO YOU MEAN BY "CRITICAL WATER SUPPLY SHORTAGES"?

A. It is no secret, nor can there be any legitimate dispute, that the Pine, Arizona area is now and for decades has been plagued by water supply limitations. I have attached to my testimony a hydrologist's report prepared for the Company that clearly illustrates the long-standing nature of the problems. *See* Exhibit A, Clear Creek Associates *Water Resources Study Strawberry/Pine, Arizona* dated March 27, 2002. Since the Company's current rates went into effect, Arizona's ongoing drought conditions have served to worsen the typical water supply limitations that prevail in the area. At the same time, Gila County has undertaken a concerted effort to promote growth in the Pine-Strawberry area in order to enhance the County's tax base, further straining the area's limited water supplies. As a result, although Pine Water has made great strides in improving and expanding infrastructure, as the Commission has recognized, water supplies remain limited.

Q. IN DECISION NO. 65435, THE COMMISSION ORDERED PINE WATER TO INCLUDE A DETAILED PLAN CONCERNING HOW IT WOULD

ADDRESS THESE WATER SHORTAGE PROBLEMS. IS SUCH A PLAN INCLUDED IN THIS FILING?

A. Yes, attached to my testimony as Exhibit B is the Company's *Water Supply Augmentation Plan*. In this plan, the Company outlines several steps that can and should be considered as part of an overall plan to further minimize the impact of the region's chronic water shortages on Pine Water's ratepayers by enhancing available supplies and constructing related infrastructure, as well as improving existing infrastructure. Unfortunately, however, there is simply no viable, or inexpensive, solution that will eliminate the water supply problems facing Pine Water and its customers.

Q. ARE YOU SAYING THAT PINE WATER WILL ALWAYS FACE WATER SUPPLY PROBLEMS?

A. As a practical matter, I am afraid the answer is yes. There have been numerous calls by, among others, Gila County, developers, customers, and to some extent this Commission, for massive capital investment by Brooke Utilities to solve the water supply problems that impact the Company and its ratepayers. But our customers cannot drink or bathe in money, and to a large extent the lack of water is a hydrological reality no amount of capital investment can eradicate. Additionally, there are numerous legal constraints to many of the potential measures to minimizing the impacts of supply shortages, such as prohibitions on inter-basin transfers under Arizona law and restrictions on uses of CAP water. But, most importantly, there are certain financial realities that must be accepted. There simply are no cheap or quick fixes.

Q. WHAT "FINANCIAL REALITIES" ARE YOU REFERRING TO MR. HARDCASTLE?

A. Even assuming unlimited capital investment would eliminate the water supply

shortages, and further assuming that Brooke, or someone else, has unlimited capital to invest to find new water sources and construct infrastructure – two very questionable assumptions in my view – can the Company's customers really be expected to pay the costs of such investment? In other words, the massive financial investment that would be required to solve the water supply shortages Pine Water faces may not be feasible on the backs of less than 2,000 ratepayers. Certainly a capital and operational solution to the problem that creates an economic impossibility is no solution at all.

Let me give an example. Intervenor John Breninger testified during the interim rate proceeding that it would cost as much as $4,000,000 for Pine Water to drill some unknown number of so-called "deep wells" to access as yet untapped aquifers lying well below the surface. Initially, I should point out that we believe such an estimate is extremely conservative given the need for infrastructure, delivery systems, pumping capability, and related equipment to make such a deep well even minimally productive. In any event, adding $4,000,000 to the Company's rate base, at an extremely conservative rate of return of 10% for a Company with this level of risk, would add approximately $400,000 to the Company's return on rate base, plus an estimated $260,000 for income taxes and $100,000 for depreciation expense. Consequently, a one time $4,000,000 investment in deep wells would add approximately $760,000 to the Company's annual revenue requirement, resulting in an average impact on residential customers of approximately $32 per month--just to provide the Company a return **on** and return **of** such an investment. This does not include the increased operating expenses, which would be significant given the pumping costs associated with pumping water found at much lower levels than the Company's existing supplies, or the costs of any other necessary capital investment by Pine Water.

Put bluntly, it cannot be overstated that the problems facing Pine Water are not easily solved, and any measures must be considered in the broader hydrological, legal, regulatory and economic framework.

Q. DOESN'T THIS MAKE CONSERVATION AN IMPORTANT TOOL IN MINIMIZING THE IMPACTS OF WATER SUPPLY SHORTAGES ON PINE WATER AND ITS RATEPAYERS?

A. Absolutely, and the revised Curtailment Tariff and interim rate surcharge under consideration by the Commission as this testimony is being written and filed are key components of the overall conservation plan. Right now, there is little consequence to customers who fail to meet mandatory conservation measures. Furthermore, in the past it has been easy for customers and, frankly, the Commission, to insist that Pine Water haul water to customers at tremendous expense during times of critical supply shortages because there is absolutely no financial impact on the customers. These circumstances undermine conservation efforts and exacerbate the supply and financial problems faced by Pine Water.

Q. WHAT ADDITIONAL CONSERVATION STEPS ARE BEING PROPOSED BY THE COMPANY IN THIS PROCEEDING?

A. There are several. First, as explained in Tom Bourassa's direct testimony, the rate design proposed by the Company is intended to make those who place a greater demand on the system pay a greater share of the costs through, among other things, a seasonal rate design that requires rate payers to pay more in the summer months when historically increased water demand typically outstrips the available supply. These rate design characteristics will send a strong price signal to enhance conservation efforts. Next, as Mr. Bourassa also explains, the Company is seeking a permanent means of recovering the costs of augmenting supplies during periods of critical shortages, costs that are always likely to exceed recovery through rates.

A permanent water augmentation surcharge, like the interim surcharge currently pending Commission approval, will send another strong conservation price signal, especially when coupled with the proposed, revised Curtailment Tariff also pending before the Commission. Lastly, the Company proposes a Customer Education Program, as illustrated in Exhibit C attached to my testimony.

IV. PINE WATER'S PAST, PRESENT AND FUTURE EFFORTS TO IMPROVE ITS WATER SYSTEM AND SUPPLIES

Q. WHAT STEPS HAVE BEEN TAKEN TO AUGMENT THE WATER SUPPLIES AVAILABLE TO SERVE CUSTOMERS SINCE BROOKS UTILITIES ACQUIRED THE PINE WATER SYSTEM?

A. Since August 1996, Brooke Utilities has drilled five new wells in Pine and six new wells in Strawberry. Two of the wells in Pine and four in Strawberry were developed under long-term water sharing agreements with local property owners and remain in production. Two other existing wells were re-drilled to greater depths where increased sources of water supply were believed to be available. Another well in Strawberry was "straight-bored" to correct an original drilling problem, deepened, and also remains productive. Brooke Utilities' efforts to repair and maintain the existing water system infrastructure as well as new well exploration has produced a dramatic increase in water production as compared to pre-1996 levels.

We have also worked diligently to recapture water from the leaking infrastructure we inherited from our predecessor. The infrastructure is primarily comprised of materials used and approved in the 1970's and 1980's that are not preferred today. This has the same general effect as exploring for new water. Since 1996, more than 700 leaks have been repaired in the water systems in Pine and Strawberry, with the majority of these leaks located in Pine. We estimate that

these efforts have produced an additional 250,000 gallons per day and the Company remains diligent in its leak repair program.

Further, since 1996, approximately 170,000 gallons of additional water storage capacity has been developed in Strawberry and more than 100,000 gallons of water storage capacity has been developed in Pine. This additional water storage capacity allows Pine Water to better manage its operational needs. Additionally, Pine Water has completely interconnected its water facilities so that water movement within the Company's certificated service to meet fluctuating demand can be more efficiently accomplished.

Q. ANY OTHER SIGNIFICANT EFFORTS?

A. Yes, perhaps the most important effort undertaken was the construction of "Project Magnolia" in early 2001. This 10,800-foot pipeline constructed, owned and operated by Brooke Utilities, connects the water systems of Pine Water and Strawberry Water and can deliver up to 700,000 gallons per day between the two systems. The water supply available to Strawberry Water is greater and more stable than that of Pine Water and Project Magnolia transports large quantities of water from Strawberry to Pine to supplement deficient water supplies.

Q. DESPITE THESE EFFORTS, PINE WATER CONTINUES TO FACE WATER SUPPLY PROBLEMS?

A. That is correct. The explanation to Pine Water's limited water supply is primarily hydrological and geological. There has never been proof of an aquifer below Pine, Arizona. Rather, geological research suggests that water travels from north to south and from east to west in the Mogollon Rim area through fractured rock. These fractures create fissures in which small and limited amounts of water can collect. If a well is drilled in a fissure it is likely to be a limited production well. If a well is drilled outside of a geological fissure the water supply is even more limited or

non-existent. Since 1996, Pine Water Co. has drilled four wells in Pine that were economically unproductive.

Frankly, another reason for the limited water supply is Gila County's obsession with increased levels of residential and commercial development in the area. The County has ignored the fundamental fact that the water supply in Pine is inherently limited, conditions known and acknowledged by many observers, including Gila County, for decades. Gila County has nevertheless allowed the population of Pine, Arizona to increase to a level that exceeds the additional supplies resulting from the many improvements made by Brooke Utilities. Yet, the County has never implemented a water conservation program in Northern Gila County. These acts and omissions by the County have contributed substantially to the water supply problems.

Q. WHAT STEPS IS PINE WATER CURRENTLY TAKING IN AN EFFORT TO FURTHER IMPROVE ITS SYSTEM AND ADDRESS THESE WATER SUPPLY LIMITATIONS?

A. The current steps being taken by Pine Water are described in greater detail in the Augmentation Plan attached to my testimony as Exhibit B. Of course, Pine Water is in the midst of the proceeding before the Commission concerning the revised Curtailment Tariff and interim surcharge mechanism to recover costs of water supply augmentation during periods of critical water supply shortages. These are two very important steps in the overall plan to address the water supply problems prevailing in Pine, Arizona because together these measures promote and enforce conservation as well as protect the Company's financial viability.

Additionally, Pine Water commenced drilling three new water wells in Strawberry in April 2003. This water can be moved from the far reaches of Strawberry to any area of Pine through Project Magnolia. The Company has also

recently installed telemetry tank monitoring devices on all critical water storage tanks in Pine and Strawberry to allow for more accurate, timely, and regular electronic reporting of water storage levels. This information will assist Pine Water in forecasting future water storage levels, monitoring conservation stages, and managing the available water supplies in Pine and Strawberry in a much more timely fashion.

Q. WHAT STEPS IS PINE WATER CONSIDERING IN THE FUTURE TO ADDRESS THE WATER SUPPLY PROBLEMS IT FACES?

A. Again, the attached Augmentation Plan provides a detailed discussion of alternatives that might be pursued to address chronic water supply shortages. In the short-term, Plan alternatives under consideration include increased water storage, condemnation of water supplies, and further water exploration and water sharing arrangements, in addition to those efforts already underway. Beyond the near-term future, Plan alternatives being considered include the possibility of an exchange of Pine Water's Central Arizona Project water allocation and implementation of an increasingly progressive rate design structured to promote conservation and allocate more of the cost burden on those placing a greater demand on the system. Other such mid-range alternative measures discussed in the Augmentation Plan include well exploration on public lands, increased hydrological studies and perhaps the possibility of legislative changes that would protect the Pine, Arizona region's scarce water resources while improving Pine Water's ability to meet ever increasing customer demand.

Q. THE AUGMENTATION PLAN ALSO DISCUSSES SOME LARGER PROJECT ALTERNATIVES. COULD YOU IDENTIFY THOSE ALTERNATIVES?

A. Sure. One of the projects that has been under discussion for some time is the Pine

Reservoir Project, theoretically a massive water storage reservoir intended to store supplies available during non-peak times for use during periods of peak demand. Another alternative discussed in the Plan is the possibility of so-called deep well exploration, an effort to tap water resources that are believed to exist up to or even beyond 2000 feet below ground.

Q. HOW DOES PINE WATER PROPOSE TO IMPLEMENT THE ALTERNATIVES IDENTIFIED AND DISCUSSED IN THE PLAN?

A. That is not a question that can currently be answered. Initially, it must be pointed out that the Augmentation Plan attached to my testimony as Exhibit B was prepared in direct response to the Commission's directive in Decision No. 65435 that the Company include in its rate filing a plan for addressing the water supply problems that have plagued the Pine area. The Augmentation Plan submitted herewith is intended as an outline of the possible, or maybe I should say theoretical, alternatives Pine Water is aware of and believes are worthy of consideration and further discussion. Some alternatives, like new wells and water sharing agreements, the revised Curtailment Tariff and the initial steps towards a more progressive rate design are within Pine Water's discretion and power to implement or seek approval to implement, and the Company has already taken steps toward such implementation.

However, many of the alternatives, such as the Pine Reservoir Project, deep well exploration or exchange of the Company's CAP allocation require the collective efforts of the Company and its ratepayers, as well as the Commission, its Staff and various other federal, state and County governmental agencies. Put bluntly, it would not be prudent for Pine Water to simply plow forward with implementing the more complex alternatives identified in the Augmentation Plan until the collective efforts of those identified above demonstrates that such

alternatives are: (1) hydrologically sound; (2) operationally feasible; (3) legally possible; and (4) economically viable.

Q. DOES THE PLAN DISCUSS COSTS AND OTHER OPERATIONAL, LEGAL AND/OR PRACTICAL CONSIDERATIONS?

A. Yes, to the extent such information is known or subject to estimation, we have identified projected costs and identified a number of advantages, disadvantages and concerns relative to specific alternatives. As can be readily seen, as I pointed out above, what this information illustrates is that there are no easy quick, low cost solutions to the water supply problems in and around Pine, Arizona.

Q. HOW WILL IMPLEMENTATION OF THE PLAN ALTERNATIVES BE FUNDED?

A. Again, the Company can only provide partial answers to that question. As indicated in the Augmentation Plan, funding various alternatives would occur by debt and/or equity financing. Pine Water also is proposing that the Commission approve a Water Exploration Surcharge. As explained by Mr. Bourassa in his direct testimony, this surcharge would help offset the costs to be incurred by Pine Water and Brooks Utilities while helping to better allocate the risks associated with such capital projects.

But the source of capital funding is not really the problem. Where should all this capital be spent? What if millions of dollars are spent pursuing one or two of the alternatives I have identified and little or no additional water is secured? Is Brooke Utilities really assured of recovery? Or will some argue that such investments are not prudent because they did not yield a quantity of water to justify the expenditure?

Q. MR. HARDCASTLE, ARE YOU SUGGESTING THAT PINE WATER AND ITS SHAREHOLDER WITHHOLD CAPITAL INVESTMENT AND DO

NOTHING TO AUGMENT EXISTING SUPPLIES EXCEPT HAUL WATER IN EMERGENCIES?

A. Absolutely not. Brooke Utilities has already demonstrated its commitment to improving service to customers by exploring new sources and improving infrastructure. As I said, Brooke Utilities is willing to continue to do so within reason but it will not shoulder all of the risk associated with the search for the wet needle in the big dry haystack, as it has done since acquiring the Pine Water system in 1996. In large part, the exploration surcharge mechanism is designed to offset and better allocate such risks to those creating the demand for solutions.

And that really illustrates the problem. Again, not only are there no quick and inexpensive fixes, there may be no fixes at all for the water supply problems that plague Pine water and its ratepayers. As a consequence, until all interested parties can agree on which of the Augmentation Plan alternatives should be pursued, beyond their identification in some sort of "White Paper" like Exhibit B, pinpointing a funding plan is not possible. There is simply too much uncertainty in most of the Plan alternatives for Brooke Utilities to proceed on its own facing all of the risk yet armed only with a mere hope of cost recovery.

Q. WHAT ABOUT CONSERVATION? WHAT ADDITIONAL STEPS DOES PINE WATER PROPOSE TO FURTHER PROMOTE CONSERVATION?

A. In addition to the proposed, revised Curtailment Tariff and associated water hauling surcharge mechanism now pending Commission approval. Pine Water has also included its proposed Customer Education Program in this rate filing pursuant to Commission directives. *See* Exhibit C. The proposed Customer Education Program is another important tool in the Company's efforts to address the water supply problems through a combination of new rate design, additional capital investment and various conservation measures.

Q. HOW DOES THE CUSTOMER EDUCATION PROGRAM AID THE COMPANY IN THESE EFFORTS?

A. As described in the attached proposed Education program, the Company proposes to facilitate the dissemination of information to customers regarding water system and supply issues as needed during critical and pertinent time periods. Pine Water's Customer Education Program outlines a variety of measures that will be used to disseminate information including mass mailings, bill inserts, customer and community meetings, and a variety of methods of providing information regarding current water supply conditions. This Program should allow Pine Water and its ratepayers a far greater opportunity to conserve precious water supplies and manage the water systems to maximize delivery capability.

V. REQUEST FOR PERMANENT RATE RELIEF

Q. WHY IS PINE WATER SEEKING PERMANENT RATE RELIEF AT THIS TIME?

A. Well, initially I should point out that the exact timing of this rate filing is pursuant to Commission order in Decision No. 65435, wherein the Company was ordered to file an application for permanent rate relief no later May 1, 2003. Beyond the Commission dictating the timing of this filing, however, Pine Water has a substantial need for rate relief.

Q. WHY DOES PINE WATER NEED RATE RELIEF?

A. As explained in Mr. Bourassa's direct testimony, Pine Water has suffered operating losses for each of the past three years. This is true, primarily, due to increased operating expenses being incurred by the Company associated with Project Magnolia, the water delivery project I discussed above. Because Project Magnolia came online after the Company's current rates were approved, none of the costs, including the cost of purchasing water from Strawberry Water or the costs

associated with the transportation of that water through Project Magnolia, are being recovered by Pine Water.

In addition, Pine Water seeks a mechanism to make permanent the type of expense recovery being addressed in the pending Curtailment Tariff and interim rate docket. Again, as explained earlier in my testimony, and in Mr. Bourassa's direct testimony, the Company faced significant increases in operating expenses three of the past four years to augment water supplies during periods of critical shortage. Again, like the costs associated with Project Magnolia, none of these increased costs have been recovered by Pine Water. And, while the interim surcharge mechanism will allow Pine Water to recover some of the costs it will incur to haul water until such time as the Commission issues a decision in this rate proceeding, the Company remains concerned that the costs of augmenting water supplies during periods of critical shortages, which costs have historically run ten times normal operating costs, will never be fully recovered through permanent rates. Therefore, the Company seeks approval of permanent rate recovery methodology to address the costs associated with water hauling and other means of water augmentation.

Q. ARE THERE ANY OTHER REASONS FOR THE COMPANY'S APPLICATION FOR PERMANENT RATE RELIEF?

A. Yes, further pursuant to Commission directive in Decision No. 65435, Pine Water has included in this filing its Water Supply Augmentation Plan, Exhibit B, and its Proposed Customer Education Program, Exhibit C. Not only does Pine Water view these proceedings as an opportunity for the Company and the Commission to begin the process of implementing such plans, this rate proceeding is also necessary to ensure that the initial steps towards capital investment and recovery of such investment are addressed. As explained above, there is a substantial amount of

planning and decision making that needs to be conducted by all interested parties, not just Pine Water, in order to determine the best alternatives to pursue to augment Pine Water's existing available water sources. In addition, it is necessary to begin the process of developing ways to fund the capital investment needed to both explore for new resources and to develop such resources and to make them productive. This proceeding provides the first opportunity for the Commission, its Staff, the Company and its ratepayers to substantively address these very important issues.

Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

1414529.1

HARDCASTLE DIR. EXH. A

CLEAR CREEK ASSOCIATES

Practical Solutions
in Groundwater Science

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March 27, 2002

Mr. Thomas R. Wilmoth, Esquire
Fennemore Craig, P.C.
3003 North Central Avenue, Suite 2600
Phoenix, Arizona 85012-2913

Letter Report
Water Resources Study
Strawberry/Pine, Arizona

Dear Mr. Wilmoth:

This letter presents the analysis and findings of Clear Creek Associates' water resources study of the Pine Water Company service area and Strawberry Water Company service area. As part of this investigation, Clear Creek Associates reviewed existing documents and basic data that were obtained from public sources and Brooke Water Company. We also interviewed a local well drilling firm, Aero Drilling Company of Payson, Arizona, to obtain additional verbal information relating to the local groundwater conditions. Clear Creek Associates prepared groundwater elevation contour maps and conducted a flow net analysis to estimate the groundwater resources of the Strawberry/Pine area. We also prepared hydrographs of wells in the Pine and Strawberry service areas, to assess the relationship between local groundwater levels and regional precipitation events.

GROUNDWATER ELEVATIONS AND FLOW DIRECTION

Clear Creek Associates prepared a groundwater elevation contour map of the Strawberry/Pine area, which is presented on Figure 1. The Strawberry/Pine groundwater elevation map is based on water level data from the Arizona Department of Water Resources (ADWR) Groundwater Site Inventory (GWSI) records. Most of the water level data for the area were measured in 1987, with some water level measurements from more recent years between 1996 and 1999 (Figure 1).

The groundwater table in the Strawberry/Pine area ranges in elevation from approximately 5,818 feet above mean sea level (MSL) in the northeastern portion of Strawberry service area, to approximately 5,262 feet MSL near the west-central portion of the Pine service area. Generally, groundwater moves through the region in a southward and westward direction. Figure 2 shows a regional groundwater elevation map that was prepared by ADWR and the United States Geological Survey (USGS) for the region north of the Strawberry and Pine service areas

(McGavock and others, 1986). The regional groundwater map indicates a groundwater gradient (water table slope) to the west (Figure 2). This westward groundwater gradient is also reflected in the local groundwater elevation contours for the Strawberry area (Figure 1).

The natural groundwater gradient has been reversed in the Pine area, however, by the development of a groundwater depression (drawdown cone), which is indicative of groundwater withdrawal in amounts exceeding the rate of natural recharge. The drawdown cone in the Pine area extends to the eastern boundary of the Strawberry service area, causing some groundwater from that area to migrate in an eastward direction. The flow direction of groundwater always occurs at right angles to groundwater elevation contours. The approximate pathway of groundwater flow (flux) beneath the Strawberry/Pine area is represented by the arrows on Figure 1. Groundwater enters the area from the north, and splits into a westward flow path (in response to the natural hydraulic gradient) and an eastward flow path (in response to the drawdown cone in the Pine area) (Figure 1). The groundwater flow paths on Figure 1 indicate that the Pine service area is receiving groundwater flux from essentially the same source area as the Strawberry service area. The Pine service area may also receive groundwater flux directly from the north (along Pine Creek) and/or the east (from the Mills Ranch Point area), but groundwater elevation data for those areas were insufficient to include them in the groundwater elevation map.

SENSITIVITY OF THE STRAWBERRY/PINE AREA TO DROUGHT CONDITIONS

The groundwater supply available to an area is directly related to the amount of recharge that occurs up-gradient of the area, and the amount of groundwater in storage that can be withdrawn. Recharge occurs when water from precipitation or runoff percolates down into the aquifer through pore spaces and fractures in the earth. The amount of recharge varies from year to year, in response to changes in precipitation rates. The sensitivity of an aquifer to drought conditions depends on the horizontal extent of the up-gradient recharge area, and the amount of groundwater in storage.

Groundwater in storage in the Strawberry/Pine area occurs in sedimentary rocks that are composed of sandstone, siltstone, or limestone formations of Paleozoic age (over 200 million years old). While these formations have some porosity between sediment grains, much of the original porosity was lost by compaction and cementation of the sediment during lithification. Secondary porosity is created by fractures and faults that occur within the Paleozoic strata. The secondary porosity in the Strawberry/Pine area is high enough to allow generally uninterrupted groundwater flow through the area, but the volume of groundwater stored in the fractures and pore spaces is relatively small.

The horizontal extent of the recharge area for the Strawberry/Pine area is also limited. The regional groundwater map prepared by ADWR and USGS shows a groundwater divide only several miles north of the Strawberry and Pine service areas (Figure 2). This groundwater divide is the northern limit of the area that contributes groundwater flux to the Strawberry/Pine aquifer

system. This relatively small recharge area is analogous to a small watershed that contributes surface water to a small stream only in response to precipitation events. In times of extended drought, the lack of recharge would likely result in severe impact to the groundwater resources of the Strawberry/Pine area.

EVALUATION OF HYDROGRAPHS IN THE STRAWBERRY AND PINE AREAS

A hydrograph is an x-y plot for a single well, which shows changes in the groundwater depth (shown on the left vertical axis) over time (shown on the bottom horizontal axis). Clear Creek Associates prepared hydrographs for two wells in the Strawberry Water Company service area, and for two wells in the Pine Water Company service area. The locations of those wells are shown on Figure 3, and they have been labeled as Wells No. 1 through No. 4, for reference. The hydrographs for Wells No. 1 through No. 4 are presented in Attachment A.

In addition to the groundwater data, the hydrograph plots include monthly precipitation data from the Payson weather station, for the period from 1986 to 2000 (Attachment A). The precipitation data show that the period from November 1986 to February 1993 was wetter (with an average monthly precipitation of about 1.7 inches per month), and the subsequent period from March 1993 to December 1999 was dryer (averaging only about 0.7 inches per month). This change in precipitation is directly reflected by both wells in the Strawberry area.

Well No. 1 had rising water levels from November 1990 to April 1993, followed by a declining water-level trend that resulted in an approximate 81-foot decline in groundwater depth from about 45 feet below land surface (bls) in April 1993, to about 126 feet bls in December 1999. The water level in this well dropped as low as 184 feet bls in August 1997 (Attachment A).

Well No. 2 has a shorter period of record, but also had rising water levels from January through May 1993. The following period had a declining water-level trend similar to Well No. 1, which also resulted in an approximate 81-foot decline in groundwater depth from about 196 feet bls in May 1993 to about 277 feet bls in November 1999. The water level in this well also dropped significantly in August 1997, to about 301 feet bls (Attachment A).

The two wells in the Pine area have somewhat different water-level trends, which may result from importation of water from the Strawberry area after 1997. Brooke Water Company did not own Pine Water Company or Strawberry Water Company prior to 1997, and thus, they do not have records of previous water transfers. However, during some previous years, water was reportedly hauled into the Pine and Strawberry areas from the Starlight Pines area to the north (Mr. Dean Shaffer, personal communication). The water transfers from Strawberry to Pine since 1997 are shown below, in Table 1.

TABLE 1 – Water Transfers from Strawberry Water Company to Pine Water Company	
Year	**Water Transfer (gallons)**
1997	1,169,000
1998	3,763,400
1999	539,700
2000	5,535,000
2001*	16,008,000

*Through November 2001

Well No. 3 had variable but generally stable water levels from prior to 1993, followed by an abrupt water-level decline of approximately 65 feet from March to August 1993. The water level then recovered and remained somewhat stable until March 1995, when water-level declines again resulted in a drop of about 77 feet by November 1996 (Attachment A). Significant water-level declines have not been measured in this well after 1997, possibly due to the water transfers from the from the Strawberry area (Table 1).

The water levels in Well No. 4 are quite variable but generally stable prior to 1993. An abrupt water-level decline of approximately 99 feet occurred from April to August 1993. The water level then recovered and remained somewhat stable until August 1995, when an abrupt water-level rise and decline occurred from August 1995 to November 1996 (Attachment A). The water level has increased in this well since 1997, possibly due to the water transfers from the from the Strawberry area (Table 1).

FLOW NET ANALYSIS OF THE STRAWBERRY AND PINE AREAS

Aquifer test data can be used to estimate the transmissivity (T) of an aquifer, which generally represents the aquifer's ability to transmit groundwater to a pumping well. The T value is represented in units of gallons per day per foot (gpd/ft), and is related to the hydraulic conductivity (K) and aquifer thickness (b) by the relationship:

$$T = Kb$$

Information from four aquifer tests in the Strawberry and Pine service areas were provided by Brooke Water Company. The aquifer test data were evaluated using the Cooper-Jacob (1946) method to estimate the transmissivity at each well site. The aquifer test data and Cooper-Jacob Plots for each well are presented in Attachment B, and the results of the aquifer test analyses are presented in Table 2, below. The locations of wells that were tested are shown on Figure 4.

TABLE 2 – Aquifer Test Results, Strawberry/Pine Area		
Well Name	**Transmissivity (gpd/ft)**	
Strawberry View III Well	17	Average = 117
Johnson Well #1	215	
Johnson Well #2	119	
Bloom Well	537	537

The local aquifer test data enabled Clear Creek Associates to perform a flow net analysis of the Strawberry/Pine area, to estimate the rate of groundwater flux beneath the two service areas. The rate of groundwater flow can be estimated with the relationship:

$$Q = KIA$$

Where,

Q is the groundwater discharge (flow) in gallons per day (gpd),

K is the hydraulic conductivity in gallons per day per square foot (gpd/ft^2),

I is the groundwater gradient (slope) in horizontal feet per foot of drop (ft/ft, or unitless), and

A is the cross-sectional area of the aquifer in square feet (ft^2).

Based on water levels and well depths in the area, Clear Creek Associates conservatively considers the aquifer thickness (b) to be approximately 327 feet. The width of the Strawberry service area is approximately 1 mile (5,280 feet) at right angles to the down-gradient direction, so the cross-sectional area (A) of the aquifer is considered to be 1,726,560 ft^2.

From the local groundwater elevation contours (Figure 1), the groundwater gradient (I) was measured to be approximately 140 feet per mile (0.026 ft/ft).

The average T value for the Strawberry area is 117 gpd/ft (Table 2, Attachment B), and the aquifer thickness is conservatively considered to be 327 feet, as indicated above, so a representative K value for the Strawberry area is considered to be 0.358 gpd/ft^2.

Using these values for the Strawberry area, the groundwater flux is calculated to be:

Q = KIA
Q = (0.358) x (0.026) x (1,726,560)
Q = 16,071 gpd

Converting units,

Q = 5,865,849 gallons per year (gal/yr) for the Strawberry area
Q = 18 acre-feet per year (AF/yr) for the Strawberry area

Since the natural groundwater gradient in the Pine area has been disturbed by the local drawdown cone, we assume that the hydraulic gradient (I) and aquifer thickness for that area are similar to the Strawberry area. Therefore, the aquifer thickness (b) is considered to be approximately 327 feet. The width of the Pine service area is approximately 1.5 miles (8,011 feet) in the northwest-southeast direction, at right angles to what was likely the original groundwater flow direction. Thus, the cross-sectional area (A) of the aquifer is considered to be 2,619,597 ft^2.

From the local groundwater elevation contours (Figure 1), the groundwater gradient (I) was measured to be approximately 140 feet per mile (0.026 ft/ft).

The T value for the Bloom Well in the Pine area can be estimated to be several different values, as the well was pumped intermittently for a 3-day period (Attachment B). The lowest T value of 537 gpd/ft (Table 2, Attachment B) was calculated from data from the initial pumping period. This T value is considered most representative of the true aquifer conditions, due to the possibility of incomplete water level recovery prior to the last two pumping periods. The aquifer thickness is conservatively considered to be 327 feet in the Pine area, as indicated above, so a representative K value for the Pine area is considered to be 1.64 gpd/ft^2.

Using these values for the Pine area, the groundwater flux is calculated to be:

Q = KIA
Q = (1.64) x (0.026) x (2,619,597)
Q = 111,700 gpd

Converting units,

Q = 40,770,360 gallons per year (gal/yr) for the Pine area
Q = 125 Acre-feet per year (AF/yr) for the Pine area

Therefore, our analysis indicates that the estimated groundwater resource for the Strawberry/Pine area is at least 143 AF/yr (46,636,209 gal/yr).

The above groundwater supply estimate for the Strawberry/Pine area is quite conservative, due to the limited data and the hydrogeologic complexities in the area. Although reliable data and appropriate analyses were used to develop the water supply estimate of 143 AF/yr (46,636,209 gal/yr), that value is likely an underestimate of the actual groundwater resource, since the hydrogeologic data for the area were so sparse.

In consideration of the data limitations and conservative assumptions in this analysis, the actual groundwater flux beneath the Strawberry/Pine area is probably in the range of 300 AF/yr (97,755,300 gal/yr) to 500 AF/yr (162,925,500 gal/yr). This range is consistent with the groundwater flux that was estimated for the area by the ADWR Water Resources Planning Section (1996). ADWR estimated a groundwater flux of about 226 AF/yr (73,642,326 gal/yr) coming laterally from the sandstone formation into the Pine area, and about 11 AF/yr (3,584,361) coming from the northeast, parallel to Pine Creek.

CONCLUSIONS

This report is based solely on existing information, which was limited for the study area. The groundwater elevation contour maps and hydrographs suggest that the area is sensitive to drought conditions, which appear to have a rapid and significant effect on the local groundwater system (Figure 2, Attachment A).

Based on our evaluation, there appears to be between 300 AF/yr (97,755,300 gal/yr) and 500 AF/yr (162,925,500 gal/yr) available to the Strawberry/Pine area.

Clear Creek Associates appreciates this opportunity to provide hydrogeological consulting services to Fennemore Craig. References cited in this report are listed in Attachment C. If you require additional information, or would like to discuss our analyses or findings, please call us at (602) 294-9600.

Sincerely,

CLEAR CREEK ASSOCIATES, PLC.

Marvin F. Glotfelty, R.G.
Principal Hydrogeologist

REGISTERED GEOLOGIST
CERTIFICATE NO.
22744
MARVIN
GLOTFELTY
Date Signed 3-27-02
ARIZONA, U.S.A.

\\Clearcreek01\production\Fennemore Craig\Pine-Strawberry ltr rpt 4.doc

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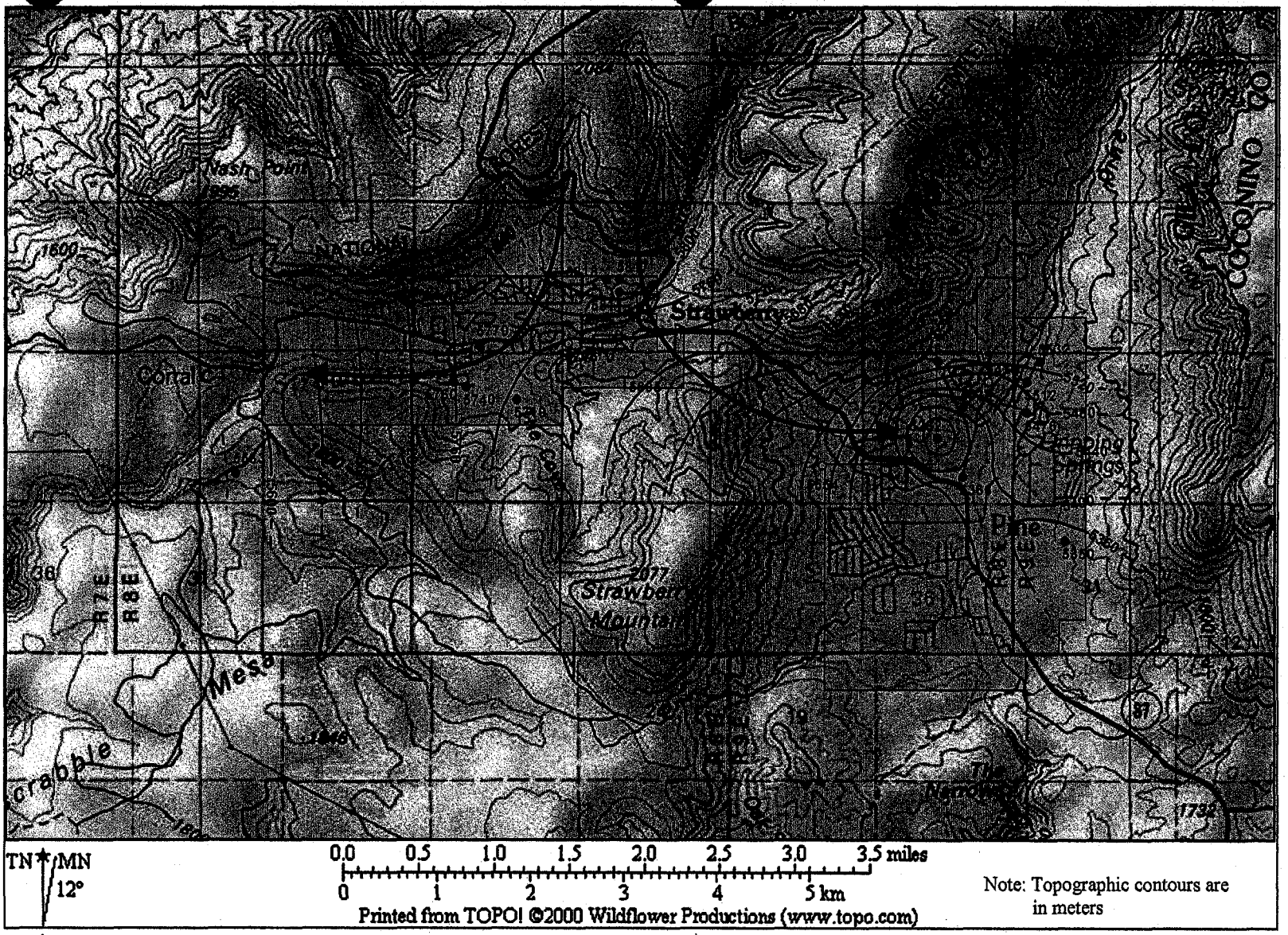
FIGURES

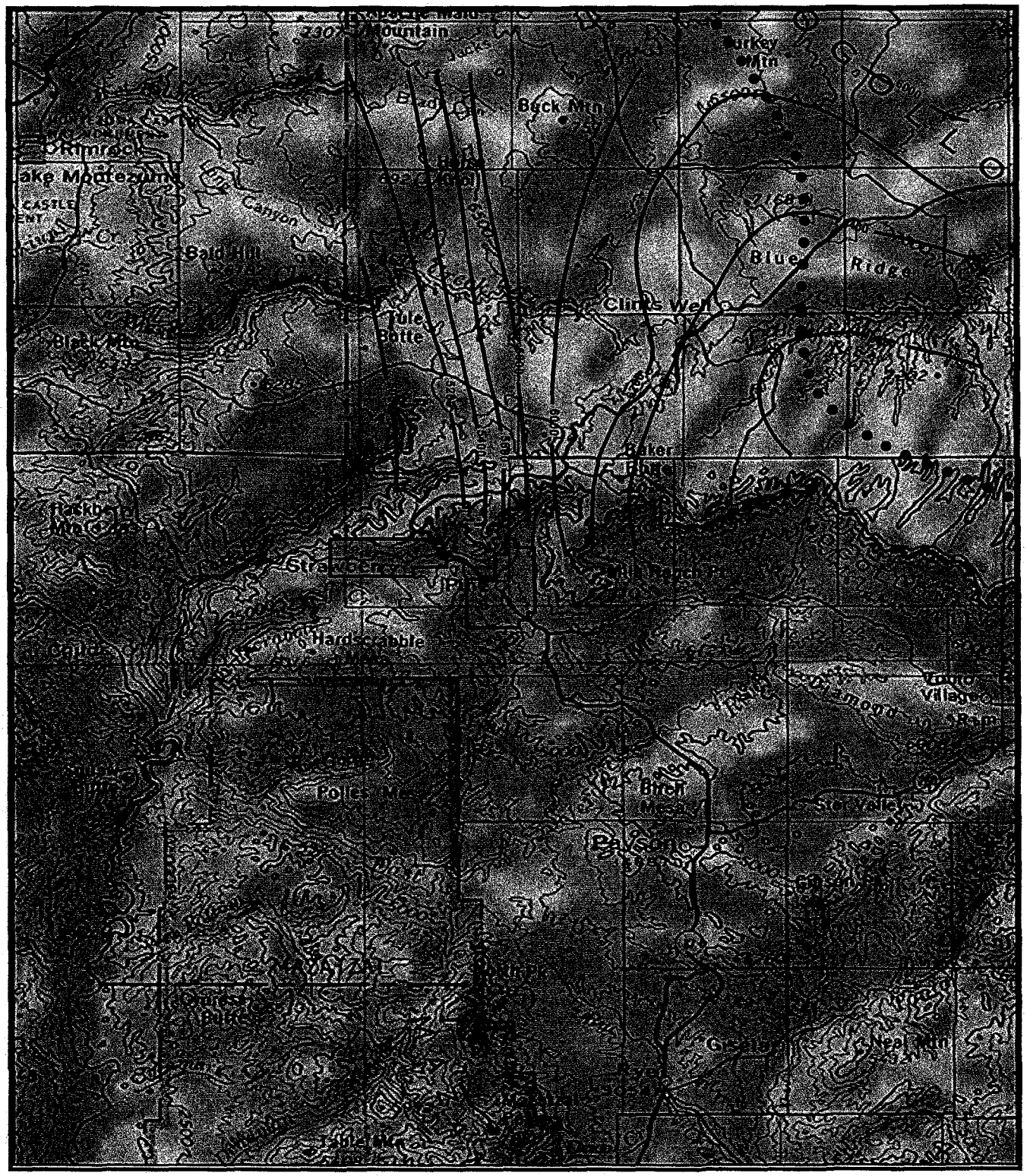


Explanation

- Approximate Strawberry Water Co. service area boundary
- Approximate Pine Water Co. service area boundary
- 5760 ● Well with groundwater elevation (measured 1987)
- 5695 ◎ Well with groundwater elevation (measured 1996 – 1999)
- 5700 Groundwater Elevation Contour (contour interval 40 feet)
- Approximate Groundwater Flow Direction

FIGURE 1
GROUNDWATER ELEVATION CONTOUR MAP
Pine-Strawberry, Arizona

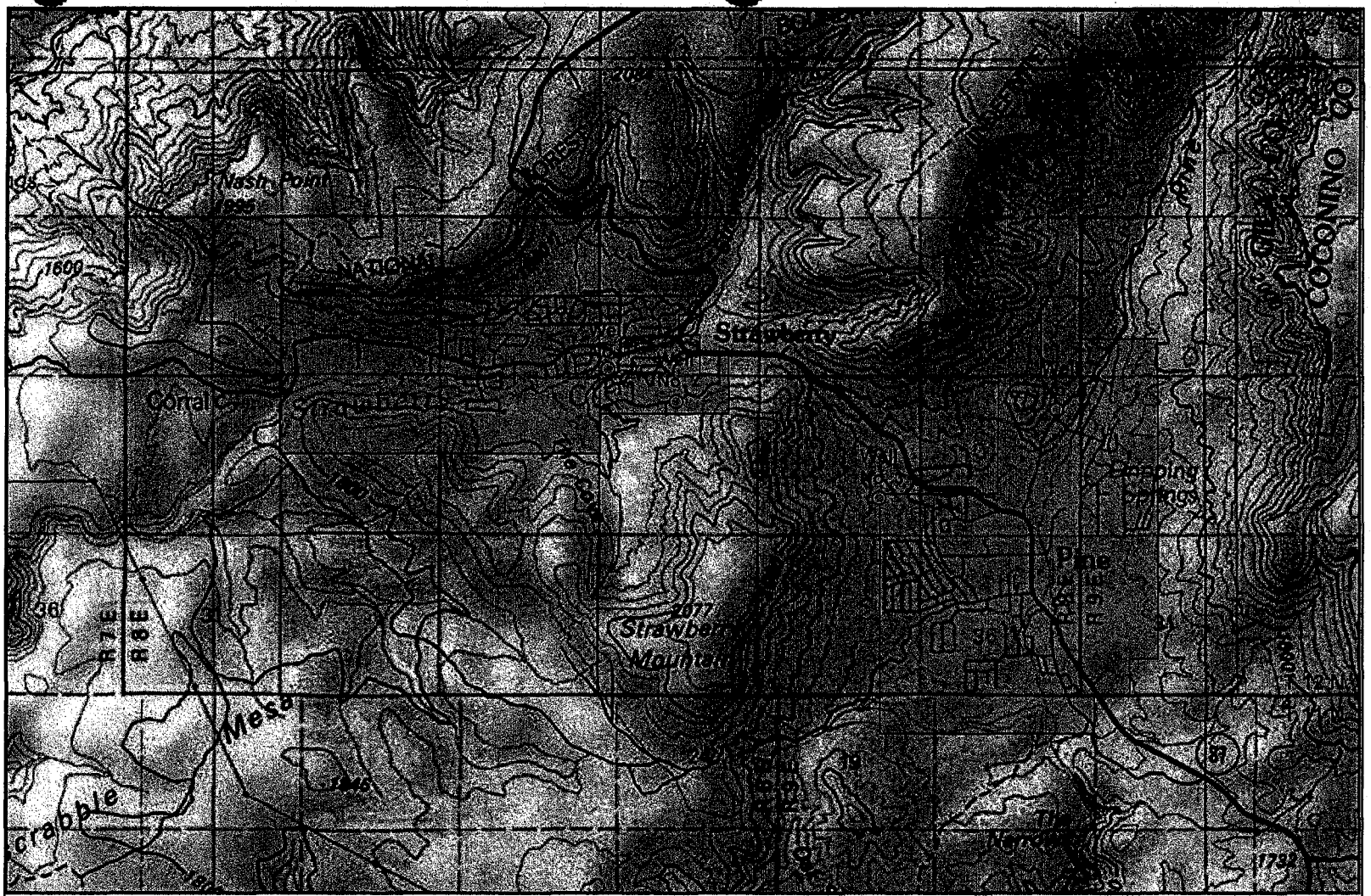
Data Source: Arizona Department of Water Resources Groundwater Site Inventory (GWSI) records.



Base map from TOPO! ©2000 Wildflower Productions (www.topo.com).

Modified from: McGavock, E.H., Anderson, T.W., Moosburner, O., and Mann, L.J., 1986. Water resources of southern Coconino County, Arizona, ADWR Bulletin 4.

FIGURE 2
REGIONAL GROUNDWATER ELEVATION CONTOUR MAP
Pine-Strawberry, Arizona



Explanation

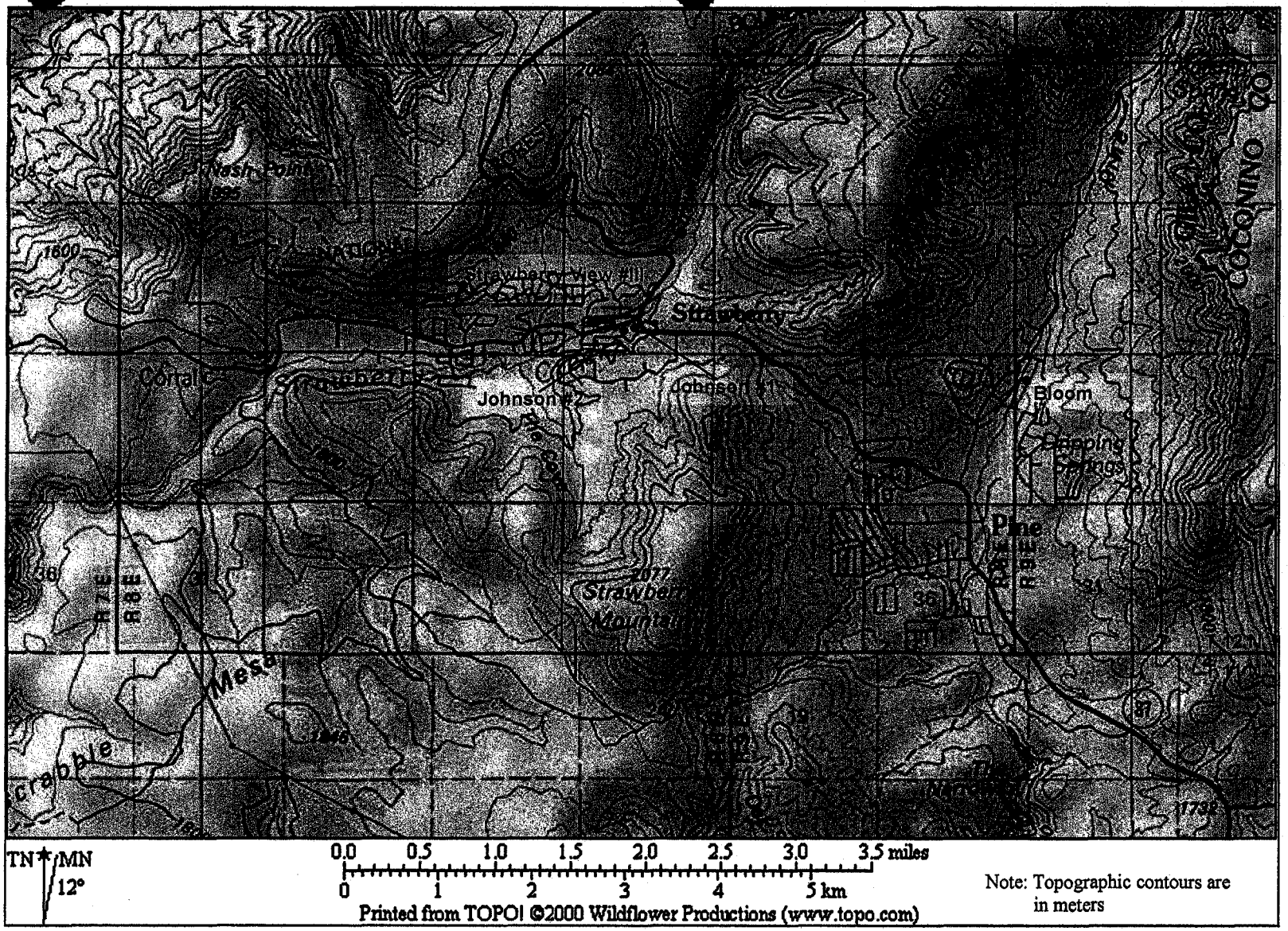
- Approximate Strawberry Water Co. service area boundary
- Approximate Pine Water Co. service area boundary
- Well No. 1 — Well with multi-year groundwater level data

FIGURE 3

WELL LOCATION MAP

Pine-Strawberry, Arizona

Data Source: Arizona Department of Water Resources Groundwater Site Inventory (GWSI) records.



Explanation

● Bloom Well with available aquifer test data

FIGURE 4

Wells with Available Aquifer Test Data

Pine-Strawberry, Arizona

Data Source: Brooke Utilities, Inc. (see Attachment B)

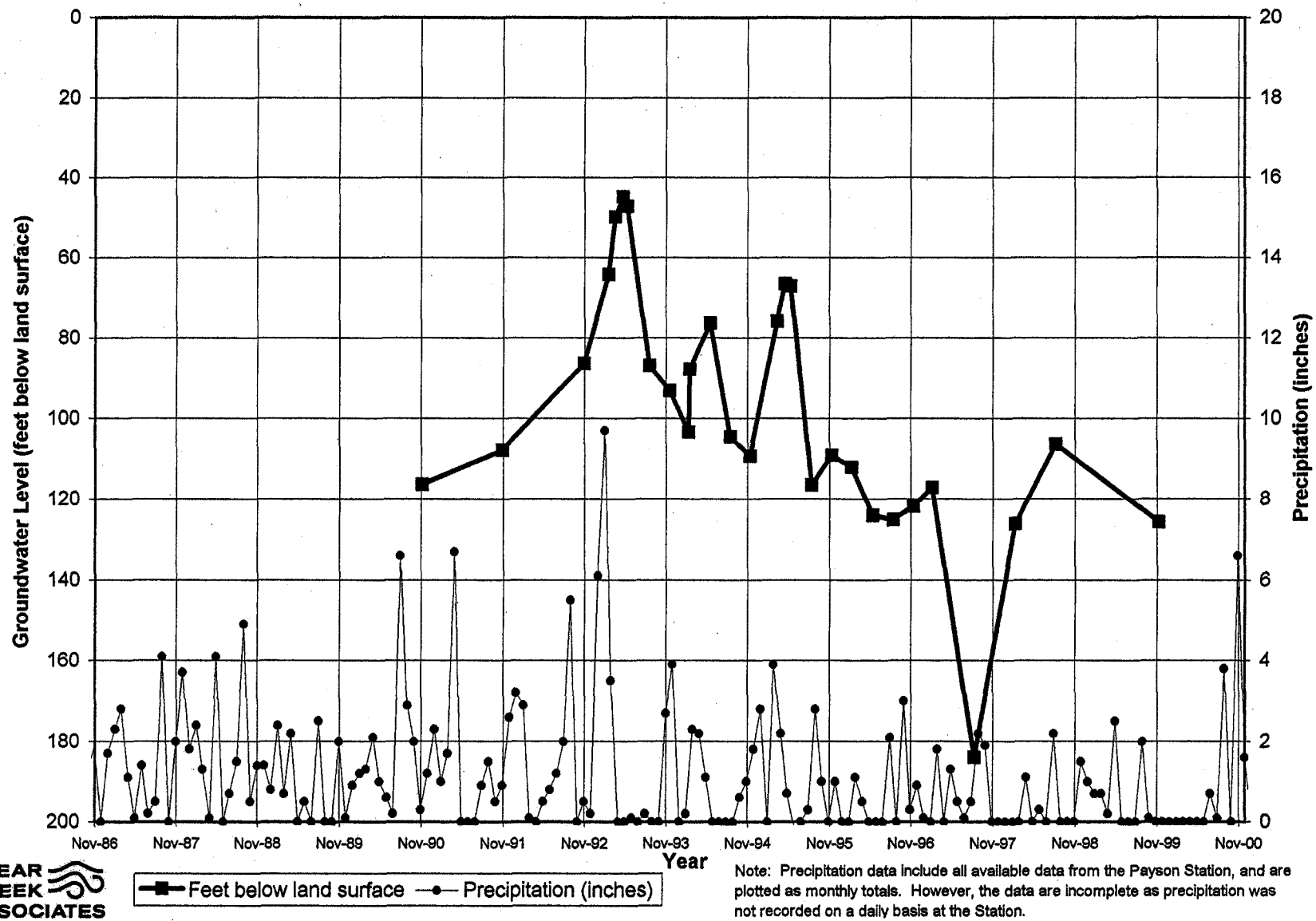
CLEAR CREEK ASSOCIATES

March 27, 2002
Thomas R. Wilmoth, Esquire
Fennemore Craig, P.C.

ATTACHMENT A
HYDROGRAPHS OF WELLS IN THE STRAWBERRY/PINE AREA

Well No. 1 Hydrograph

(B(12-8)22ccc)



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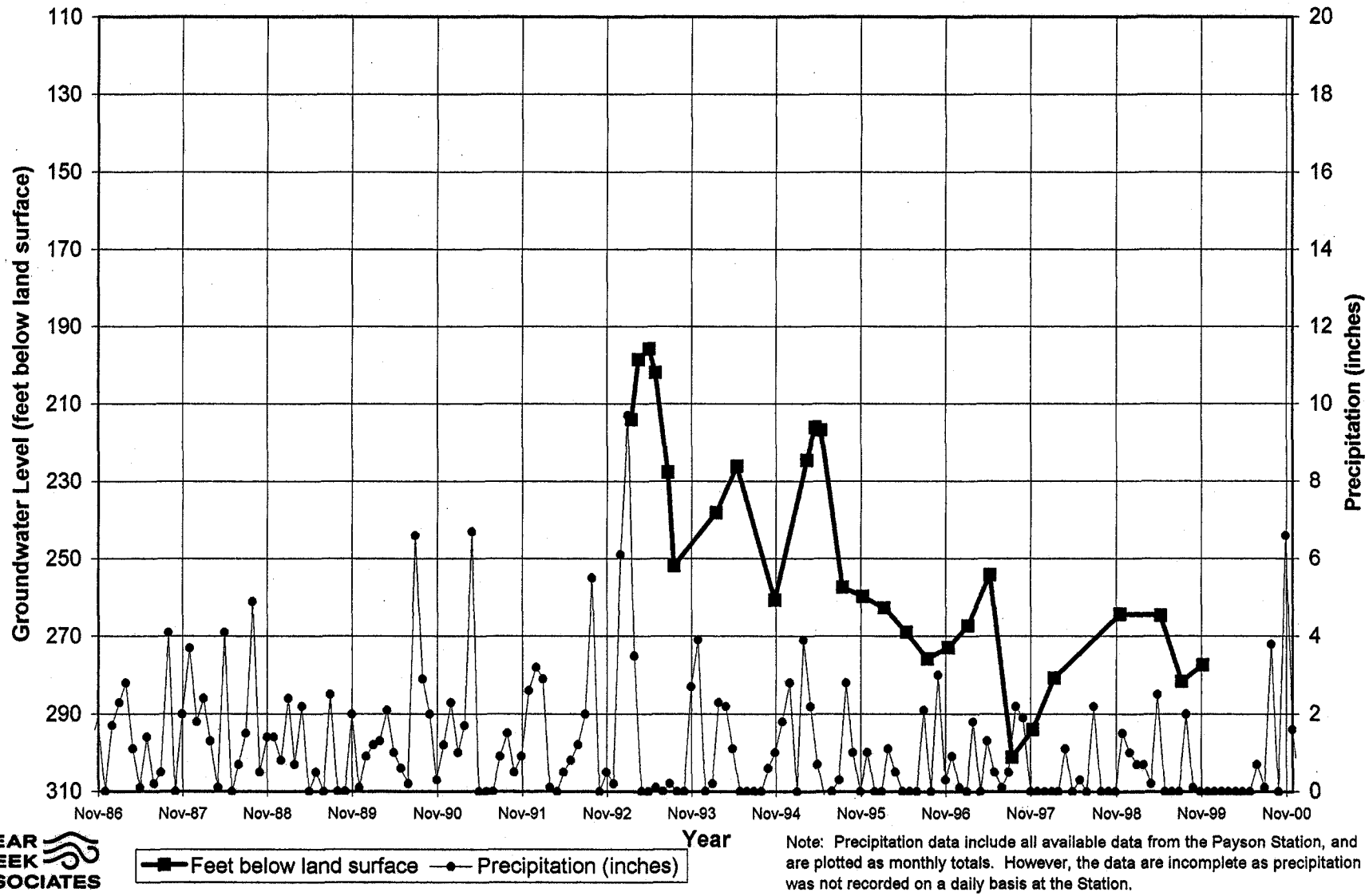
Note: Precipitation data include all available data from the Payson Station, and are plotted as monthly totals. However, the data are incomplete as precipitation was not recorded on a daily basis at the Station.

Well No. 2 Hydrograph

(B(12-8)27bad)



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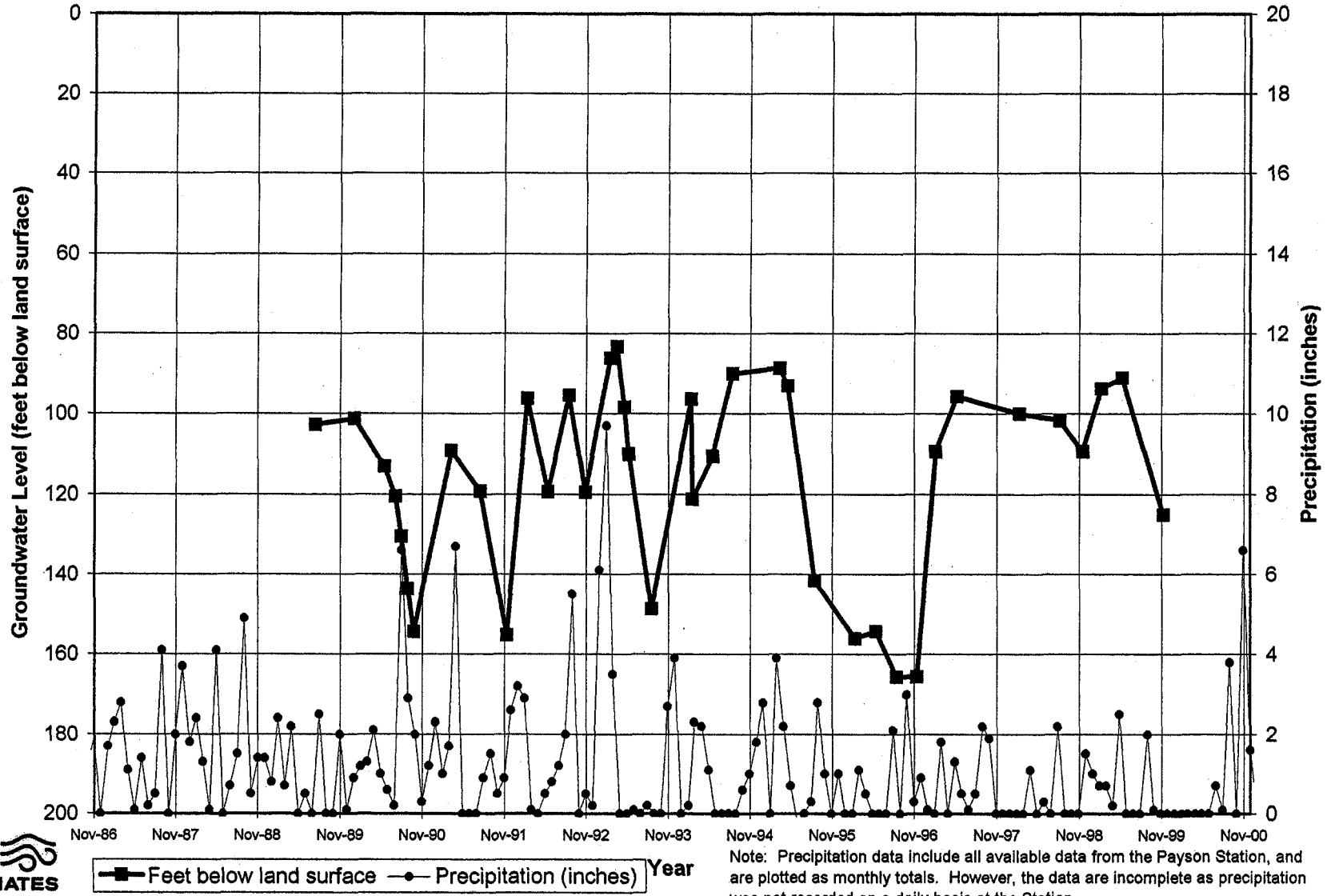
Note: Precipitation data include all available data from the Payson Station, and are plotted as monthly totals. However, the data are incomplete as precipitation was not recorded on a daily basis at the Station.

Well No. 3 Hydrograph

(B(12-8)26dac)



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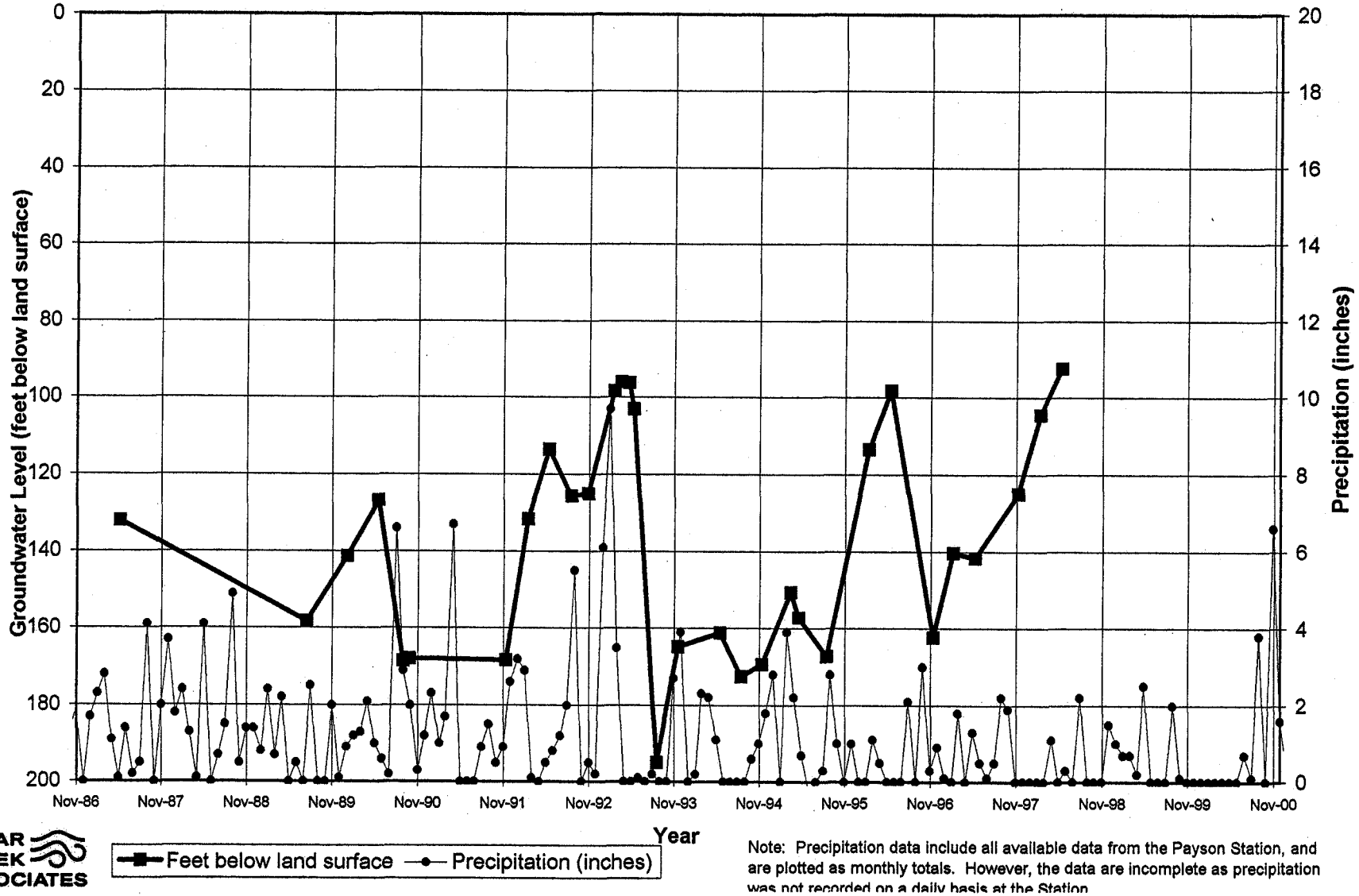
Note: Precipitation data include all available data from the Payson Station, and are plotted as monthly totals. However, the data are incomplete as precipitation was not recorded on a daily basis at the Station.

Well No. 4 Hydrograph

(B(12-8)25aac)



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Note: Precipitation data include all available data from the Payson Station, and are plotted as monthly totals. However, the data are incomplete as precipitation was not recorded on a daily basis at the Station

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ATTACHMENT B
AQUIFER TEST RESULTS FOR THE STRAWBERRY/PINE AREA

Strawberry View III Well (Lot 226)

Brooke Utilities - Strawberry/Pine Groundwater Study

Static Water Level = 214

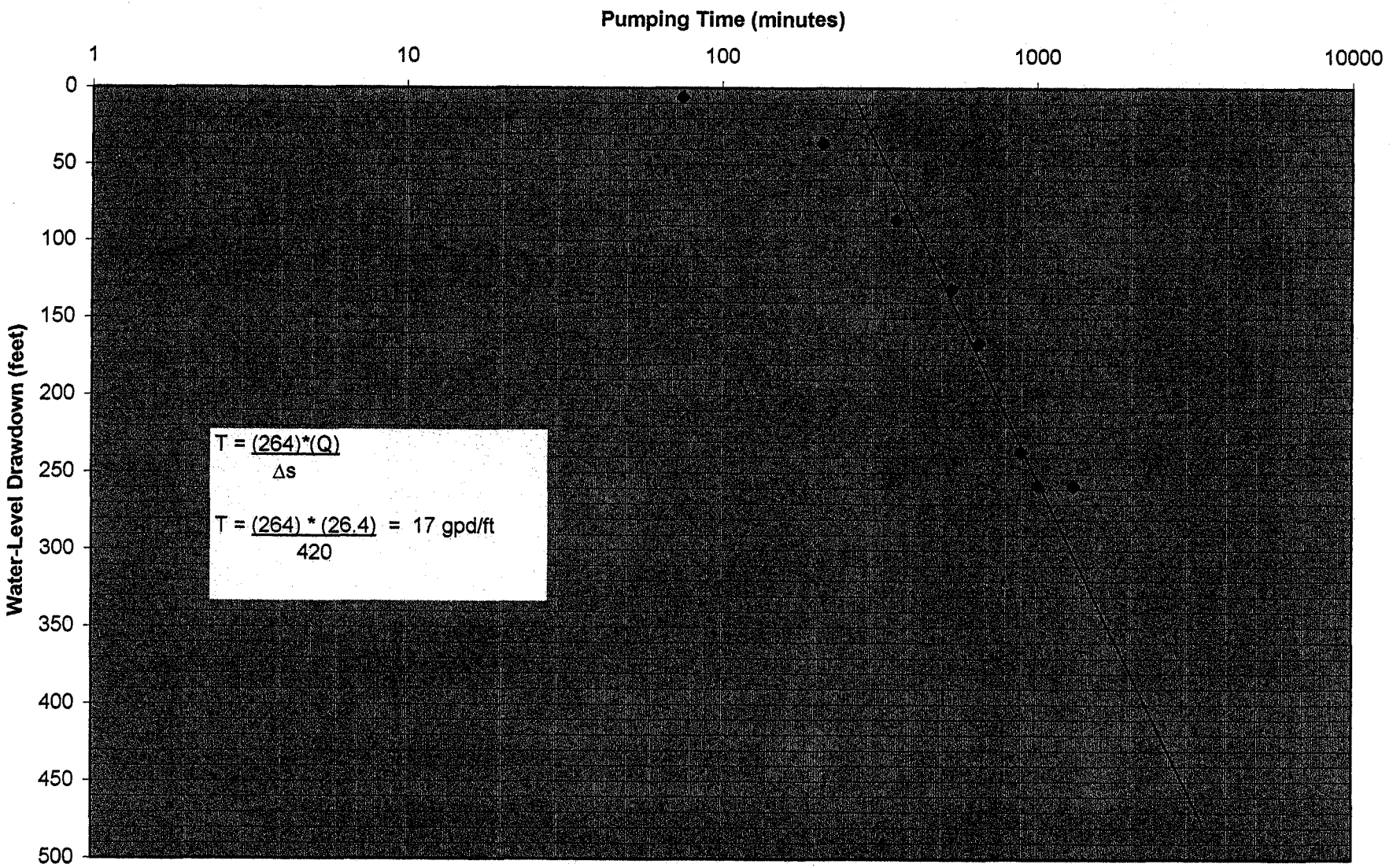
Date	Time	Pumping Time (minutes)	Water Level (feet)	Drawdown (feet)	Discharge (gpm)	Specifc Capacity (gpm/ft)	Comments
7/29/96	8:00	0	214	0	0		Pump on
	9:15	75	220	6	29	4.83	
	11:30	210	250	36	28	0.78	
	14:00	360	300	86	27	0.31	
	17:00	540	345	131	27	0.21	
	19:00	660	380	166	26	0.16	
	23:00	900	450	236	26	0.11	
7/30/96	1:00	1020	472	258	25	0.10	
	6:00	1320	472	258	25	0.10	Pump off

Data Source: Brooke Utilities, Inc.

Average Pumping Rate = 26.4 gpm
Total Pumping Period = 22.0 hours
Transmissivity (in gpd/ft) = 17 gallons per day/foot

Cooper-Jacob Plot

Brooke Utilities Strawberry View III Well



Johnson Well #1 (Meter No. 58283215)

Brooke Utilities - Strawberry/Pine Groundwater Study

Static Water Level = 110

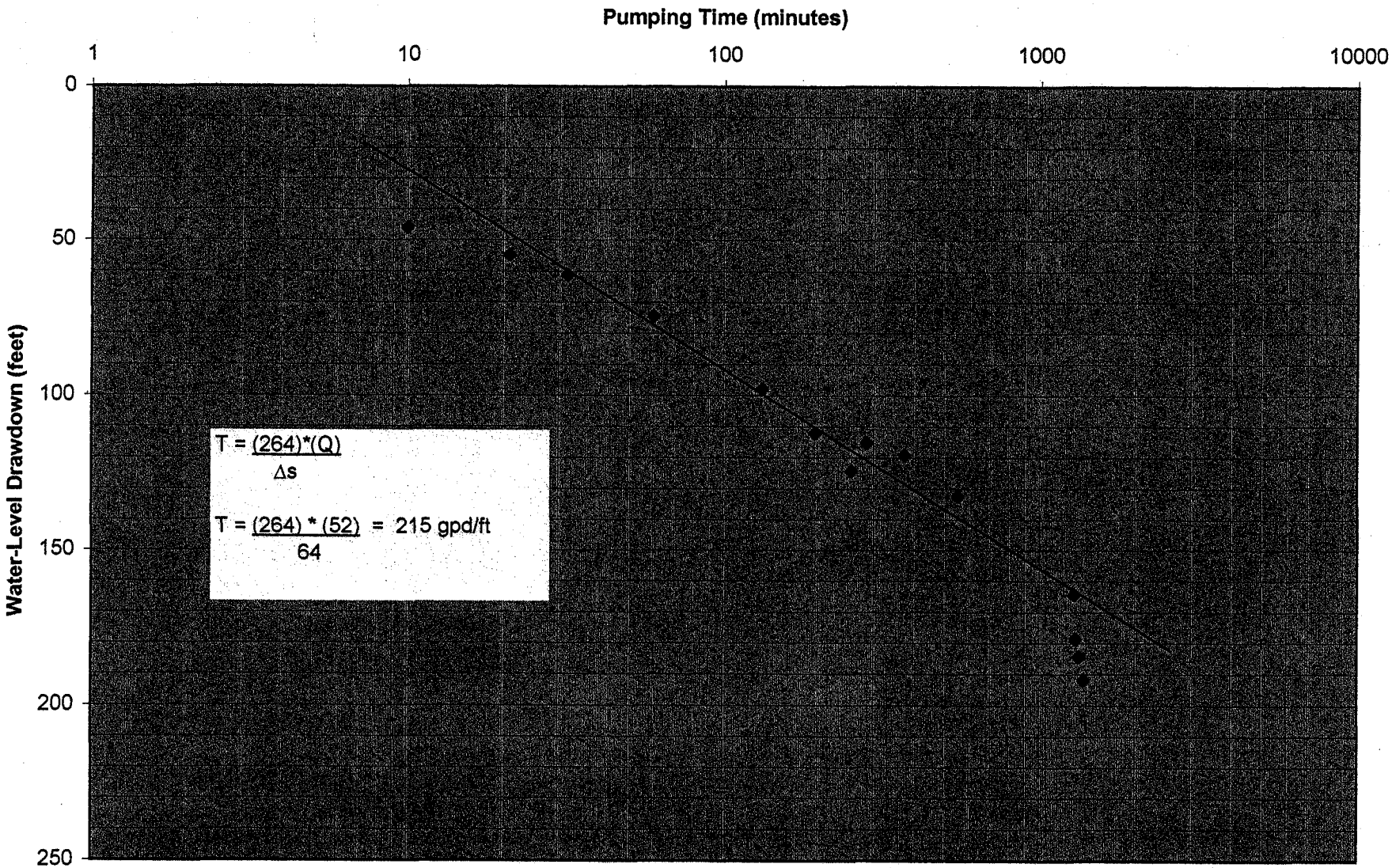
Date	Time	Pumping Time (minutes)	Water Level (feet)	Drawdown (feet)	Discharge (gpm)	Specific Capacity (gpm/ft)	Comments
05/29/2001	10:45	0	110	0	0		No discharge reported
	10:55	10	155.8	45.8	74	1.62	
	11:06	21	164.7	54.7	73	1.33	
	11:17	32	171.2	61.2	72	1.18	
	11:45	60	184.4	74.4	71	0.95	
	12:58	133	207.9	97.9	68	0.69	
	14:01	196	222.1	112.1	67	0.60	
	15:00	255	234.2	124.2	66	0.53	
	15:30	285	225.2	115.2	50	0.43	gated back to 50 gpm
	17:00	375	229	119	52.5	0.44	
	21:00	555	242.3	132.3	50	0.38	
05/30/2001	9:14	1289	274.1	164.1	46	0.28	opened valve to 62 gpm
	9:30	1305	288.6	178.6	62	0.35	
	10:00	1335	294.2	184.2	61	0.33	
	10:45	1380	301.7	191.7	61	0.32	Pump off
	12:55	1510	227	117			
	14:47	1622	209.1	99.1			
05/31/2001	9:40	2755	154	44			
	12:00	2895	148.4	38.4			

Data Source: Brooke Utilities, Inc.

Average Pumping Rate = 52.1 gpm
Total Pumping Period = 23.0 hours
Transmissivity (in gpd/ft) = 215 gallons per day/foot

Cooper-Jacob Plot

Brooke Utilities Johnson Well #1



Johnson Well #2 (Meter No. 58283216)

Brooke Utilities - Strawberry/Pine Groundwater Study

Static Water Level = 125.4

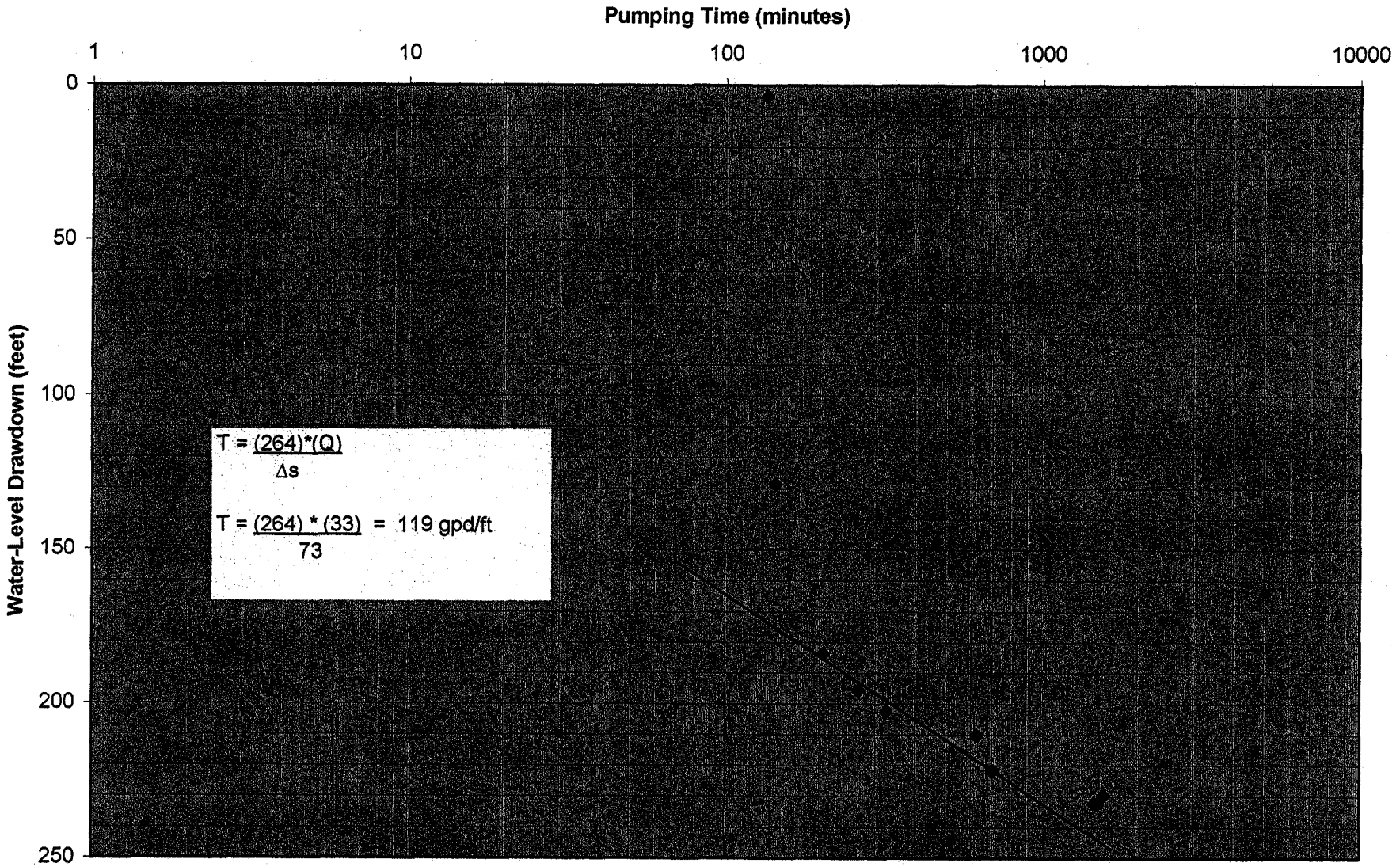
Date	Time	Pumping Time (minutes)	Water Level (feet)	Drawdown (feet)	Discharge (gpm)	Specific Capacity (gpm/ft)	Comments
05/30/2001	9:17	0	127	1.6	?		No discharge reported
	11:32	135	128.9	3.5	43	12.29	
	11:42	145	254	128.6	38	0.30	
	12:42	205	309.1	183.7	34	0.19	
	13:42	265	320.9	195.5	34	0.17	
	14:42	325	327.7	202.3	33	0.16	
	19:45	628	335.4	210	33	0.16	
	21:00	703	347.2	221.8	32	0.14	
05/31/2001	9:45	1468	357.6	232.2	31	0.13	
	10:30	1513	357.6	232.2	31	0.13	
	11:30	1573	354.9	229.5	31	0.14	
	12:00	1603	174.6	49.2			Pump off
	12:33	1636	170.6	45.2			
	13:34	1697	166.5	41.1			

Data Source: Brooke Utilities, Inc.

Average Pumping Rate = 32.8 gpm
Total Pumping Period = 26.2 hours
Transmissivity (in gpd/ft) = 119 gallons per day/foot

Cooper-Jacob Plot

Brooke Utilities Johnson Well #2



Bloom Well (Lot 52908317)

Brooke Utilities - Strawberry/Pine Groundwater Study

Static Water Level = 53

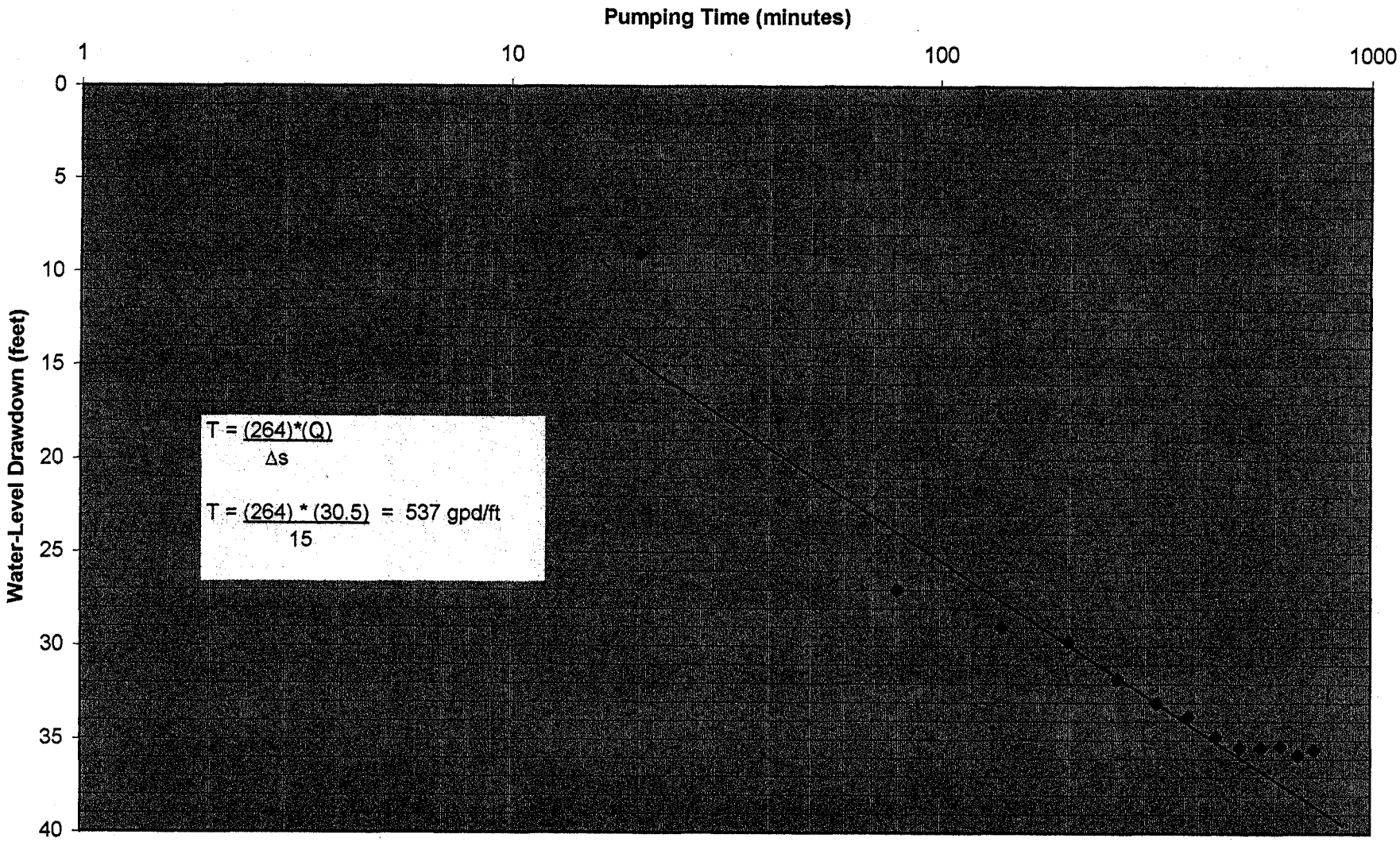
Date	Time	Pumping Time (minutes)	Water Level (feet)	Drawdown (feet)	Discharge (gpm)	Specific Capacity (gpm/ft)		Comments
04/09/1999	11:20		53	0	0			Static Water Level
04/12/1999	7:10	0						"clean up water" (?)
	7:30	20	62	9	31	3.44	620	Pump on
	8:30	80	80	27	32	1.19	1920	
	9:30	140	82	29	30	1.03	1800	
	10:30	200	82.7	29.7	31	1.04	1860	
	11:30	260	84.7	31.7	31	0.98	1860	
	12:30	320	86	33	30	0.91	1800	
	13:30	380	86.7	33.7	31	0.92	1860	
	14:30	440	87.8	34.8	30	0.86	1800	Gated to 30 gpm
	15:30	500	88.4	35.4	30	0.85	1800	
	16:30	560	88.4	35.4	30	0.85	1800	
	17:30	620	88.3	35.3	30	0.85	1800	
	18:30	680	88.8	35.8	30.5	0.85	1830	
	19:30	740	88.5	35.5	30	0.85	1800	Pump off
04/13/1999	7:00	0	54	1	0	0.00		"Static" Water Level
	8:00	60	82.6	29.6	30	1.01	1800	Pump on
	9:00	120	86	33	31	0.94	1860	
	10:00	180	87.7	34.7	31	0.89	1860	
	11:00	240	88.6	35.6	30	0.84	1800	
	12:00	300	88.8	35.8	31	0.87	1860	
	13:00	360	89.2	36.2	31	0.86	1860	
	14:00	420	89	36	30	0.83	1800	
	15:00	480	90.1	37.1	31	0.84	1860	Gated to 30 gpm
	16:00	540	89.8	36.8	30	0.82	1800	
	17:00	600	89.8	36.8	30	0.82	1800	
	18:00	660	90.5	37.5	30	0.80	1800	
	19:00	720	90.9	37.9	30	0.79	1800	Pump off
04/14/1999	7:00	0	55	2	0	0.00		"Static" Water Level
	8:00	60	83	30	31	1.03	1860	
	9:00	120	87.3	34.3	30.5	0.89	1830	
	10:10	190	89	36	31	0.86	2170	
	12:21	321	90.1	37.1	30	0.81	3930	
	14:00	420	91.2	38.2	31	0.81	3069	Gated to 30 gpm
	15:45	525	91.2	38.2	30	0.79	3150	Pump off
04/15/1999	7:00	0	55.1	2.1	0	0		"Static" Water Level

Data Source: Brooke Utilities, Inc.

	04/12/1999	04/13/1999	04/14/1999
Average Pumping Rate =	30.5	30.4	30.5
Total Pumping Period =	12.3	12.0	8.8
Transmissivity (in gpd/ft) =	537	1,672	1,610

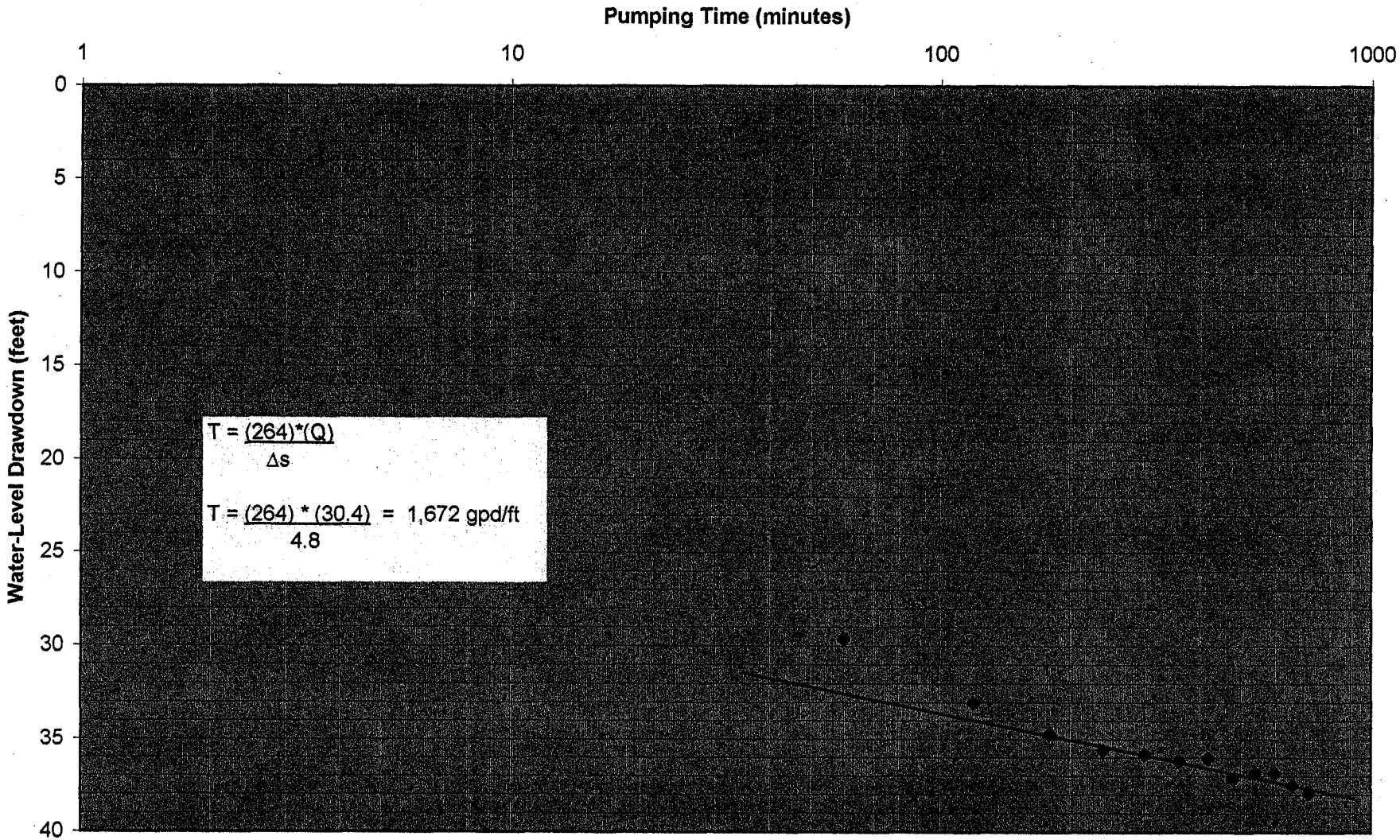
Cooper-Jacob Plot

Brooke Utilities Bloom Well
April 12, 1999



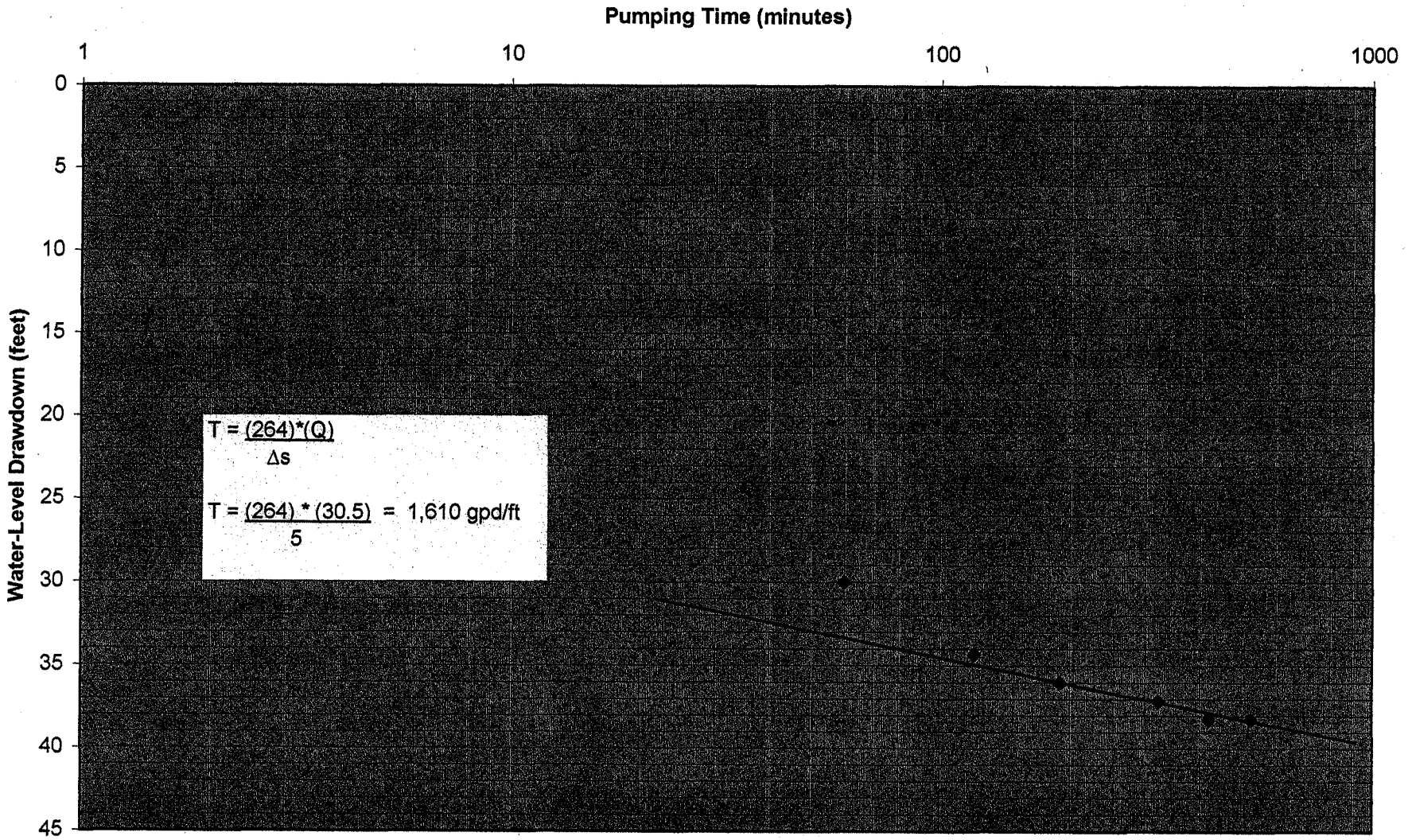
Cooper-Jacob Plot

Brooke Utilities Bloom Well
April 13, 1999



Cooper-Jacob Plot

Brooke Utilities Bloom Well
April 14, 1999



CLEAR CREEK ASSOCIATES

ATTACHMENT C
REFERENCES CITED

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HARDCASTLE DIR. EXH. B

Water Supply Augmentation Plan

for

Pine Water Co., Inc.

Pine, Arizona

May 1, 2003

Water Supply Augmentation Plan for Pine Water Co., Inc.

Statement of Purpose

Pine Water Co., Inc. (hereinafter "Pine Water") serves domestic potable water to nearly 2000 customers in the community of Pine, Arizona. Pine is located north of Payson in Northern Gila Co. Pine, like much of Northern Gila County, is heavily populated in the "summer" months by part-time residents. Pine Water, a wholly owned subsidiary of Brooke Utilities, Inc. ("Brooke"), has owned and operated the water systems in Pine since August 1996.

For *decades* the community of Pine has suffered from chronic ground water supply deficiencies caused by consumption in excess of the available water supply. Excessive development of the area, lack of mandated water conservation measures, poor water system management prior to Pine Water's ownership, and insufficient development of alternative sources have contributed to the history of deficient water supplies relative to demand.

During the last several years the entire State of Arizona, and particularly Northern Gila County, has been severely affected by the worst drought conditions in over 100 years. The confluence of these conditions has intensified Pine's already serious water supply conditions. For several days during the summer of 2002 customers of Pine Water were without any water supplies.

The Arizona Corporation Commission (the "Commission") has recognized Pine Water's success to date in enhancing water availability and improving service. Still, the Commission desires that Pine Water continue in its efforts to address water supply problems, and in Decision No. 65435 (the "Decision") directed Pine Water to "develop a detailed plan showing how it will address the water shortage problem". As a result, Pine Water has developed this *Water Supply Augmentation Plan for Pine Water Co., Inc.* (the "Plan") in an effort to (a) comply with the directives of the Commission, and (b) discuss effective alternatives to Pine's chronic water shortage problems.

It cannot be overstated, however, that Pine Water alone cannot address the water supply problems that prevail in Pine, Arizona. It will take the collective effort of Pine Water, its shareholder Brooke Utilities, Inc., its ratepayers, the Commission and its Staff and various other local, state and federal governmental agencies to develop strategies to explore and utilize additional water resources. Then, it will take a great deal of capital investment and allocation of risk to pursue implementation of such strategies. And, despite all that effort, very little additional water may be available to Pine Water's ratepayers. At its core, the water supply dilemma plaguing Pine, Arizona is an act of nature and no amount of planning, study and capital investment can change hydrological reality.

Short Range Water Supply Augmentation

Increased Water Storage: Pine Water currently has 950,000 gallons of available water storage. This storage is currently supplied and re-supplied exclusively from ground water sources in Pine and nearby Strawberry.[1] Pine Water is currently in compliance with required storage requirements under Arizona law, including A.A.C. R-18-4-503.

This Plan alternative contemplates building additional storage at the rate of 160,000 gallons for every 100th customer connection added to the water system. Pine Water estimates that 9 acre feet, or approximately 2.9 million gallons, of water supply would be required to meet peak customer demand for ten days. Under this alternative, new storage would be filled with off-season excess water supplies and stored for peak demand consumption. It is likely that water treatment facilities would be required to store potable water for long periods of time.[2]

There are several disadvantages to this alternative. For one thing, it is not likely that this water augmentation alternative could be utilized during peak demand months once water is initially distributed from the storage because peak demands prevents regular re-supply of water storage reservoirs. Therefore, water stored in this manner only provides a brief respite (about 10 days) to periods of water shortages. Additionally, water storage, water treatment, and property acquisition are costly. For this reason, this Plan alternative may not be as attractive, or could be rendered unnecessary, if Pine Water were able to successfully develop a larger, more permanent water storage in the area as discussed below.

Projected Cost:	
160,000 gallons water storage (each)	$100,000
Water treatment facilities[3]	$125,000
Property acquisition	$ 25,000[4]
Total Projected Cost	$250,000[5]
Development Period (per)	120 to 150 days
Funding Source:	Equity/Debt

Condemnation of Local Water Supplies: Pine Water believes it has the legal authority to exercise the power of eminent domain and that such power could theoretically be used to condemn privately owned water wells throughout its Certificate of Convenience and Necessity ("CC&N"). The condemnation process would be time consuming and expensive, however, and it is virtually impossible to estimate the economic impact on Pine Water and its ratepayers. Condemnation of water sources also represents significant risk as sustained flow characteristics for high demand public water systems are generally unknown with respect to wells previously used for private purposes. As a consequence, any such effort must be preceded by significant operational,

[1] Water is transferred to Pine from Strawberry through Project Magnolia at a rate of up to 700,000 gallons per day.
[2] It is likely that long-term water storage would be required for at least six months during the period of January through mid-July of each year.
[3] Water treatment facilities could be constructed to support more than one 160,000 gallon increment of additional above ground water storage.
[4] Assumes a negotiated purchase, as opposed, for instance, to a condemnation.
[5] Excludes additional operating expenses associated with additional storage capacity.

hydrological and legal study of possible condemnation targets, increasing the necessary investment of time and capital.

Projected Cost: (estimated per private well)	
Hydrological study	$ 10,000
Operational costs	$ 10,000
Condemnation award	Unknown
Legal costs	$ 50,000
Total Projected Cost	$ 70,000 (plus award)
Acquisition Period:	Up to one year
Funding Source:	Equity/Debt

Revised Curtailment Tariff/Water Hauling Surcharge: Pine Water has implemented voluntary and mandatory water conservation measures since acquiring the water system serving Pine, Arizona. Unfortunately, such measures have been inadequate, in large part because mandatory conservation restrictions are not implemented until the situation becomes critical and Stage 5 of the current Curtailment Tariff is reached. Moreover, in the past, there has been no penalty for violation of these mandatory conservation restrictions.

Pursuant to Commission order, Pine Water filed a revised Curtailment Tariff on February 18, 2003. The revised Curtailment Tariff, expected to be approved in May 2003, is the product of the cooperative effort of Pine Water and the Commission's Utilities Division Staff to revise the curtailment plan to incorporate stricter conservation requirements and penalties for violations. Specifically, under the revised Curtailment Tariff, mandatory conservation measures begin in Stage 3. In addition, under the revised Curtailment Tariff, Pine Water is required to augment water supplies by hauling or other similar means during Stages 4 and 5.

In order that Pine Water meets the obligation to augment supplies during Stages 4 and 5, Pine Water and Staff have recommended Commission approval of an interim rate surcharge. Historically, water hauling costs have run ten times normal operating expenses and Pine Water does not currently recover any portion of such increased costs through rates. The surcharge is designed to allow Pine Water to timely recover the cost of water supply augmentation along with the costs of implementing the revised Curtailment Tariff.[6] As a result, if approved, the revised Curtailment Tariff and rate surcharge will constitute components of Pine Water's plan to address water supply problems.

Well Exploration/Water Sharing Program: Since acquiring the water systems in Pine and Strawberry, Arizona in 1996, Brooke has undertaken an aggressive water well exploration program. To date, Pine Water has drilled 5 new wells and Strawberry Water Co., Inc., another Brooke Utilities subsidiary ("Strawberry Water") has drilled 6 new wells. Pine Water has also drilled three wells that were not economically productive. Generally, these wells have been drilled on utility-owned property or private property under water sharing agreements with private property owners. These agreements provide for well development and long-term water production from those wells. Water produced from wells under water sharing agreements is then distributed to Pine Water customers and the private property owners are paid a monthly royalty.

[6] The costs of the revised Curtailment Tariff and surcharge are discussed in detail in Commission Docket Nos. W-03512A-03-104 and –106.

Pine Water expects to continue this well exploration program over the foreseeable future. In 2003, Pine Water began drilling three new wells for this purpose. These wells are permitted through the Arizona Department of Water Resources ("ADWR") and water quality monitoring is conducted pursuant to the regulations of the Arizona Department of Environmental Quality ("ADEQ"). Newly drilled water wells that do not prove to be economically justifiable will not be fully developed but may be retained for the private property owner's personal use if desired.

Projected Cost:	
Well drilling and development	$ 75,000
Annual operating expenses	$ 6,000
Total Projected Cost	$ 81,000
Development Period	90 days
Funding Source	Equity/debt/current cash flow

Mid-Range Water Supply Augmentation

Cooperative Water Exchange: Pine Water possesses a Municipal and Industrial water exchange contract with the Central Arizona Water Conservation District ("CAWCD") for 160 acre feet of Central Arizona project ("CAP") water (about 52 million gallons). Despite having this valuable right, Pine Water cannot use CAP water given its location far from the CAP canal and the rights under the CAP subcontract cannot be sold. However, Pine Water has previously explored the possibility of an "exchange" with Salt River Project ("SRP") whereby SRP would take receipt of Pine Water's allocation from the CAP canal near Phoenix, where SRP already takes delivery of significant amounts of water. In "exchange" Pine Water would be given access to SRP's surface water rights in Pine Creek and the East Verde River or other area tributaries.[7]

Although such an "exchange" may appear simple, it is not. There are numerous operational, legal, regulatory and practical impediments to an "exchange" of Pine Waters CAP allocation. For example, when Pine Water most requires supplemental water sources, the peak demand summer months, there is typically little or no flow in Pine Creek. The CAP exchange concept requires a surface water source for storage, treatment, and distribution to be operationally viable, except during limited periods of above normal flow.

In addition to the supply problems, the requirements of dealing with down stream water rights holders who may be impacted by Pine Water's upstream access to SRP's surface water are substantial, as are the compliance obligations under federal law. Approval of the use of SRP's surface water sources in Pine Creek and of the "exchange" of the CAP subcontract would require NEPA compliance, i.e., an environmental assessment or even an environmental impact study, and it is possible there will be Endangered Species Act and Clean Water Act compliance issues as well. Overcoming such regulatory and legal hurdles could result in hundreds of thousands of dollars of costs, with no guarantee of a successful outcome.

Projected Costs:	
Legal costs	$ 50,000
Environmental study costs	$ 100,000
Water reservoir costs (minimum)	$ 650,000[8]
Water treatment costs	$ 100,000
Property acquisition	$ 165,000[9]
Annual operating costs	$ 50,000
Total Projected Costs	$1,115,000
Development Period:	3 years
Funding Sources:	Equity/Debt/surcharge[10]

[7] It might also be possible to "exchange" the CAP allocation for finds to be used to develop new water resources.
[8] In conjunction with other discussion provided herein it is possible that the flow of water from Pine Creek could be captured during winter months and stored in a mass water storage facility for future use in peak demand summer months.
[9] Assumes a negotiated purchase, as opposed, for instance, to a condemnation.
[10] In its request for permanent rate relief, Pine Water seeks approval of a Water Exploration Surcharge. This surcharge is explained in detail in the Direct Testimony of Thomas J. Bourassa.

Progressive Rate Design: In Pine Water's application for permanent adjustment of its rates, the Company has proposed a new seasonal, tiered rate design. An overarching goal of this rate design is to place a "premium" on water consumption during peak demand periods, the same time that water conservation is most required, and that Pine Water is likely to be required to augment supplies under the revised Curtailment Tariff.

Development of a rate design that equitably allocates costs, promotes conservation and protects Pine Water's financial viability is an ongoing process. The rate design proposed in this rate proceeding is a significant step, however, more remains to be done. For example, the ideal rate design for Pine Water will not only recognize seasonal fluctuations in supply and demand, but also increased demand during weekend and holiday periods when the part-time population in the Pine area dramatically increases. This would, in turn, require implementation of advanced technology water meter systems that permit the collection of "time of use" consumption data in addition to other operational changes. In addition, implementation of the rate design proposed herein will lead to more information and the likelihood of refinement and modification, a sort of trial and error process Pine Water and its customers will need to pass through before achieving maximum benefit from a progressive rate design. For now, it is imperative that the Commission approve a seasonal, tiered rate design like the one proposed by Pine Water in its application for rate relief so that the economic value of scarce water supplies in Pine, Arizona become a reality.

Engineering and Hydrological Studies: Pine Water recognizes that any consideration of alternative water sources must have a sound hydrologic and engineering foundation. It would not be prudent, Pine Water believes, to search for water in areas that do not support such exploration. Pine Water recently commissioned a regional geohydrological study of ground water sources in the Pine, Arizona area. *See* Direct Testimony of Robert T. Hardcastle, Exhibit A. Generally, this report indicates that sub-surface water flows in to Strawberry from the north and continues southerly into Pine while, at the same time, flows westerly through Strawberry valley. The report concludes that Pine has a very limited sub-surface water structure and that Strawberry is a far better water production candidate than Pine. The report further concludes that it is likely a minimum of 300-500 acre feet of subsurface water flows through these areas at various depths during the course of a year.

Geohydrological Report Cost: $13,000[11]

Water Well Exploration of Public Lands: More than 90% of all land in Gila Co. is publicly owner by the U.S. Forest Service ("USFS") or other governmental landowners. There are areas surrounding Pine and Strawberry that could be attractive sub-surface water sources. Pine Water has thoroughly discussed the potential of such projects with representatives from USFS on previous occasions. Brooke Utilities also has significant experience in dealing with USFS through its development of Project Magnolia in 2000.[12] The permitting process of exploring for water on USFS land is time consuming and expensive. An additional and separate permitting process may be required to move produced water supplies off USFS or other public land and into Pine Water or Strawberry Water's existing water system infrastructure. All of these processes require NEPA compliance, including the possibility of environmental studies of unknown duration and cost to determine whether or not other water rights holders are impacted by water well development, as well as the potential need for compliance with other federal laws.

[11] This amount has already been paid by Pine Water

[12] As explained in detail by Mr. Hardcastle in his direct testimony, Project Magnolia is a 10,800 foot eight inch water line that connects the water systems of Pine and Strawberry.

Project Cost (per well):	
Water well exploration	$ 40,000
Well development	$ 35,000
USFS permitting process	$ 10,000
Environmental study[13]	$ 100,000
Legal Costs	$ 50,000
Water distribution costs[14]	$ 100,000
Total Projected Costs	$ 335,000
Development period	2-3 years
Funding Sources	Equity/Debt/Surcharge

Legislative Relief: This Plan alternative bears discussion, but is largely outside of Pine Water's ability to implement due to the potential for substantial cost and the fact that Pine Water lacks any sort of political clout. The Commission, for instance, or perhaps DWR, could pursue changes in legislation that would enhance long-term water management in the Pine, Arizona area. Pine Water believes at least three forms of legislative reform are needed. First, legislation to limit County authority to form water improvement districts without a showing that adequate water resources exist and that utilization of such resources will not be at the expense of existing water service customers. Otherwise, these districts exacerbate current water supply deficiencies and interfere with effective management of existing water systems, as Pine Water has learned from its ongoing battle with Gila County over the proliferation of water improvement districts to facilitate development. Second, legislation should be proposed that limits growth in water plagued areas. Growth without proper water resources is problematic for any water purveyor and, ultimately, its customers and the community in general. Third, Pine Water's ability to withdraw and transport groundwater from other groundwater basins is currently restricted under Arizona's Groundwater Code. See, e.g., A.R.S. § 45-544(A)(2). These restrictions were temporarily relaxed by the Legislature in 2000 to address severe drought conditions. 2000 Ariz. Laws, 2d Reg. Sess., Ch. 205 (repealed on April 30, 2001). Given the severity of the water supply situation in Pine, Arizona, similar longer-term relief appears warranted.

Long Range Water Supply Augmentation (5 to 10 years)

Pine Reservoir Project: Pine Water has been diligently working on the design of a surface water storage facility in South Pine. This facility would be able to store approximately 75 acre feet of water (approximately 24.4 million gallons) collected from off peak demand season water supplies in Pine and Strawberry and stored for distribution and consumption during peak demand periods. Pine Water has entered into an option agreement with a large property owner in South Pine that provides for a 7.63 acre site on which the facility would be constructed. The site is well situated for distribution of stored water to both Pine and Strawberry.[15] The option agreement expires at the end of 200____. The Lease Agreement associated with this facility provides for a 15-year term and three consecutive 5-year renewable option periods for a total operating period of 30 years.

[13] Cost estimate is based on the known cost of such a study for Project Magnolia.

[14] The process of obtaining a USFS permit to move water off public lands, if discovered, and connect to water system infrastructure may be able to be conducted at the same time as the well exploration process.

[15] Project Magnolia is designed to also flow water in a northerly direction from Pine if necessary.

This Plan alternative would be extremely expensive and even an estimate of the total costs would be overly speculative. Development costs for such a project could vary substantially depending on design, reservoir materials, coverage, and operational design. Given the significance of the capital investment that would have to be made, and the substantial uncertainty from factors outside Brooke's ability to control, this is an example of the type of project that would require collective planning by multiple interested parties and Commission approval of funding sources and cost recovery before the conceptual alternative can become a reality.

Projected Cost:	
Reservoir development (minimum)	$ 650,000
Water treatment facility	$ 100,000
Distribution and connection infrastructure	$ 90,000
Annual operational costs	$ 85,000
Total Projected Cost	$ 925,000[16]
Development Period:	Up to 5 years
Funding Sources:	Equity//debt/surcharge

Deep Well Exploration: There has long been a "layman's" belief that a large amount of water lies underneath Pine at depths up to and exceeding 2000 feet. However, Pine Water is not aware of any data, study, or expert hydrological or hyrdogeological information that supports such a belief. Moreover, Pine Water has always maintained that it is most reasonable and prudent to first exhaust all less expensive, realistic alternatives for increasing available water supplies and improving water service.

Nevertheless, Pine Water understands that representatives of the Pine-Strawberry Water Improvement District ("PSWID") are conducting a study to discover the prudency of drilling so-called deep wells. While Pine Water remains skeptical that such sources actually exist, even if they are discovered, there are certain economic realities that undermine the viability of this fabled resource. For instance, Pine Water estimates that a deep exploration endeavor such as PSWID envisions would cost between $5 and $10 million with no greater certainty of outcome of hydrological result than any other shallow well exploration project.[17]

Project Cost:	
Well exploration cost	$5,000,000
Well development cost	Unknown
Annual operating expenses	Unknown
Development Period	3 years
Funding Sources	Unknown[18]

[16] Again, it cannot be overstated that these are very speculative estimates. The actual costs could be substantially higher.

[17] A representative of PSWID, speaking as a private citizen, testified in Docket No. W-03512A-03-0104 and –106, not only as to his firm believe in the availability of such resources but also that he believed that the exploration costs could easily exceed $4,000,000, exclusive of well development costs and annual operating expenses. Pine Water believes the costs would be substantially higher and the likelihood of success far less than projected by this witness.

[18] As seen in Mr. Hardcastle's direct testimony, the impact on rates of even a $4,000,000 capital investment in deep well exploration by Pine Water is tremendous. Direct Testimony of Robert T. Hardcastle at 5.

HARDCASTLE DIR. EXH. C

PINE WATER COMPANY
CUSTOMER EDUCATION PROGRAM

PURPOSE: The purpose of Pine Water Company's Customer Education Program is to facilitate the dissemination of information to customers regarding water utility service by Pine Water. Such information will generally focus on the ongoing water supply problems in the Pine, Arizona area and actions being taken to maximize utilization of the region's scarce water resources by promoting mandatory and voluntary conservation measures. Such information will address the status of the Company's water supplies; Pine Water Company's short and long-term efforts to address water supply problems; implementation and enforcement of the Company's Curtailment Tariff; imposition of water supply augmentation surcharges; and additional information regarding recommended conservation measures not mandated under the Curtailment Tariff. Pine Water Company may also use the Company's Customer Education Program to disseminate information regarding regulatory decisions impacting water utility service, including decisions that impact requirements for the establishment of service and the rates and charges for such service.

TIMING: In order to ensure the timely dissemination of important information, the Company has divided the year into four quarters. As designated below, certain information will be distributed during specific quarters in order to aid Pine Water Company in maximizing utilization of the region's scarce water resources by promoting mandatory and voluntary conservation. The four quarters to be utilized are as follows:

- **Summer Quarter:** ***May – July***
- **Fall Quarter:** ***August – October***
- **Winter Quarter:** ***November – January***
- **Spring Quarter:** ***February-April***

METHODS: Pine Water will use a variety of different measures to fulfill the purposes of its Customer Education Program. Such methods include:

Bill Inserts:

- Bill insert containing conservation tips (Summer Quarter)
- Bill insert about winterizing homes (Fall Quarter)
- Bill insert about Curtailment Tariff and means of obtaining current information regarding stage changes (Spring Quarter)

Electronic Mail Advisories:

- Email Advisory for service interruptions as needed
- Email Advisory for staging changes as needed

Mailings:

- Notices as required under Pine Water Company's Curtailment Tariff

Local Sign Postings:

- Posting Curtailment Tariff stage definitions in Pine Post Office
- Posting signs regarding current stage status under Curtailment Tariff.
- Posting water storage levels in the Pine Post Office as needed.

Toll-Free Number:

- Maintaining a toll-free customer service number for billing and outage information
- Maintaining a toll-free number with information regarding current stage status under Curtailment Tariff

Community Outreach:

- Maintaining key contact (businesses and community leaders list) for distribution of information as needed.
- Working with local and statewide media to disseminate information regarding current water issues in the Pine, Arizona as needed
- "Coffee Table Meetings" with designated Company representatives and local residents and community leaders (Winter and Spring Quarters)

BOURASSA

FENNEMORE CRAIG
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Phoenix, Arizona 85012
Attorneys for Pine Water Company, Inc.

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PINE WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE AND FOR APPROVAL TO INCUR LONG-TERM DEBT	DOCKET NO: W-03512A-03-

DIRECT TESTIMONY

OF

THOMAS J. BOURASSA, CPA

TABLE OF CONTENTS

1415660.1/75206.006

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is Thomas J. Bourassa. My business address is 727 W. Maryland Ave. #12, Phoenix, Arizona 85013.

Q. WHAT IS YOUR PROFESSION AND BACKGROUND?

A. I am a Certified Public Accountant and am self-employed, providing consulting services to utility companies as well as general accounting services. I have a B.S. in Chemistry/Accounting from Northern Arizona University (1980) and an M.B.A. with an emphasis in Finance from the University of Phoenix (1991).

Q. COULD YOU BRIEFLY SUMMARIZE YOUR PRIOR WORK AND REGULATORY EXPERIENCE?

A. Yes. I was employed by High-Tech Institute, Inc., and served as Controller and Chief Financial Officer, prior to becoming a private consultant. Prior to working for High-Tech Institute I worked as a division Controller for the Apollo Group, Inc. Before joining the Apollo Group I was employed at Kozoman and Kermode, CPA's. In that position, I prepared compilations and other write-up work for water and wastewater utilities, as well as tax returns.

In my private practice, I have prepared and/or assisted in the preparation of several water and wastewater utility rate applications, including Vail Water Company, E&T Water Company, Ponderosa Utility Company, Diablo Village Water Company, New River Utility Company, Far West Water & Sewer, Sedona Venture Water and Sewer, Bella Vista Water Company, Rio Verde Utilities, Gold Canyon Sewer Company, Green Valley Water Company, the Town of Oro Valley, and, most recently, Arizona-American Water Company.

II. PURPOSE OF TESTIMONY, SUMMARY AND CONCLUSIONS

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying in this proceeding on behalf of Pine Water Company, Inc. ("Pine Water" or the "Company"). Pine Water is seeking permanent increases in its rates and charges for water utility service.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. I will testify in support of the Company's proposed rates and rate design. My testimony will focus on the revenue requirement, rate base and income statement, cost of capital and proposed return on rate base, as well as the proposed rate design and rates. I am sponsoring Schedules A through F, and H, which are filed concurrently herewith in support of this application. I was responsible for the preparation of these schedules based on my investigation and review of the relevant books and records for Pine Water and my discussions with Company representatives.

Q. HOW WILL YOUR TESTIMONY BE ORGANIZED?

A. My direct testimony is presented in three parts. The first part addresses rate base and income statement. The second part addresses the cost of capital and proposed rate of return. The third part addresses the rate design and proposed rates and charges. I will also testify concerning the other schedules required under the standard filing requirements set by the Arizona Corporation Commission ("Commission").

Q. WOULD YOU PLEASE SUMMARIZE THE COMPANY'S RATE CASE?

A. Yes. The test year proposed by Pine Water is the twelve-month period ending December 31, 2002. The test year as proposed includes pro forma adjustments based on known and measurable data and necessary to obtain a normal or realistic relationship between revenue, expenses and rate base. A return of 10.93 percent

on the Company's fair value rate base is requested. The revenue needed to provide that return for Pine Water is approximately $923,000. The increase in revenues needed to provide that return for Pine Water is approximately $269,000. This represents an increase of approximately 41% over the adjusted and annualized test year revenues.

Q. WHY IS THE COMPANY NOW SEEKING RATE INCREASES?

A. Unfortunately, Pine Water has been faced with severe water supply problems in the past few years as the demands on the limited water supply in the area have increased and Arizona's ongoing drought conditions have persisted. Since its last rate proceeding, Pine Water has experienced almost no growth in revenues from new customers due to the limits on its water supply, while the increased costs associated with augmenting water supplies and operating the system, have exceeded revenues. The ever increasing operating expenses are due primarily to the need to augment water supplies, both through Project Magnolia, described in Mr. Hardcastle's direct testimony, and by hauling water during times of critical shortage, an endeavor that increases operating expenses ten times. In addition, the Company also faces the possibility of having to commit substantial amounts of capital for new plant as ratepayers, Gila County and this Commission call for Pine Water to do even more to address the water supply problems that plague its certificated service area.

Q. BEFORE YOU BEGIN YOUR TESTIMONY ON THE RATE BASE AND INCOME STATEMENT, WOULD YOU PLEASE DESCRIBE THE SCHEDULES LABELED AS A, E, AND F?

A. Yes, all other schedules are discussed in detail below. The A-1 Schedule is a summary of the rate base, adjusted operating income, current rate of return, required rate of return, operating income deficiency, and the increase in gross

revenue. Revenues at present and proposed rates and customer classifications are also shown on this schedule.

The A-2 Schedule is a summary of results of operations for the test year, prior years, and a projected year at present and proposed rates.

Schedule A-3 contains the capital structure for the test year and the two prior years.

Schedule A-4 contains the plant construction, and plant in service for the test year and prior years. The projected plant additions are also shown on this schedule.

Schedule A-5 is a summary of changes in financial position (cash flow) for the prior two years, the test year at present rates, and a projected year at present and proposed rates for those systems.

The E Schedules are based on Pine Water's actual operating results, as reported by Pine Water in the annual reports filed with the Commission. The E-1 Schedule contains the Comparative Balance Sheet data for the years 2000, 2001, and 2002.

Schedule E-2, page 1, contains the Income Statement for the years 2000, 2001, and 2002.

Schedule E-3 contains the Statements of Changes in financial position for the test year and for the two prior years.

Schedule E-4 provides the changes in stockholder's equity.

The E-5 Schedule contains the plant in service at the end of the test year, and one year prior to the end of the test year.

The E-7 Schedules contains Operating Statistics for the year ended December 31, 2000, 2001, and 2002. The operating statistics include the number of customers, and revenue per customer, and pumping power cost per 1,000

gallons of water sold.

Schedule E-8 contains the taxes charged to operations.

The accountant's notes to the financial statements and the financial assumptions used in preparing the rate filing schedules are shown on schedule E-9 and F-4, respectively, in accordance with the Commission's standard filing requirements. The Company does not cause audited financial statements to be prepared, and none are available.

The F-1 Schedule contains the results of operations at the present rates (actual and adjusted), and at proposed rates.

Schedule F-2 contains the summary of changes in financial position (cash flow) for the prior two years, the test year at present rates, and a projected year at present and proposed rates.

The F-3 Schedule has the projected construction requirements for 2002, 2003, and 2004.

Schedule F-4 contains the assumptions used in developing the adjustments and projections contained in the rate filing.

III. RATE BASE AND INCOME STATEMENT

A. Rate Base

Q. WOULD YOU PLEASE EXPLAIN THE RATE BASE SCHEDULES, LABELED AS THE B SCHEDULES?

A. Yes. I will start with Schedule B-5, which is the working capital allowance produced by using the "formula method" of computing the working capital allowance. The Company's requested a working capital allowance is reflected on Schedules B1 and B2.

Q. HAVE YOU PREPARED A SCHEDULE SHOWING ADJUSTMENTS TO THE ORIGINAL COST RATE BASE?

A. Yes. Schedule B-2 shows adjustments to original cost rate base. There is only one adjustment to rate base. This adjustment, labeled as Adjustment 1, increases plant for post test year plant additions that will be completed by the end of 2003.

Q. DO THE PLANT AND ACCUMULATED DEPRECIATION SHOWN ON SCHEDULE B-2 REFLECT THE LAST COMMISSION RATE ORDER?

A. Yes. The plant shown on Schedule B-2 started with the Commission determined plant from the last rate case. Plant additions and retirements since the last test year have been added to and deducted from total plant shown on schedule B-2.

Schedule B-1 is the summary of the fair value rate base which is also reflected on Schedule A-1. The fair value rate base ("FVRB") shown on Schedule B-1 and A-1 is based on the original cost rate base, as adjusted. The Company is requesting the original cost rate base be used as the FVRB in this proceeding.

B. <u>Income Statement</u>

Q. LET'S MOVE ON TO THE INCOME STATEMENT, MR. BOURASSA. WOULD YOU PLEASE EXPLAIN THE ADJUSTMENTS YOU ARE PROPOSING TO THE INCOME STATEMENT AS SHOWN ON SCHEDULES C-1 AND C-2?

A. Schedule C-1 shows the Company's operating income and expenses for the test year, the adjusted test year, and the test year at proposed rates. The details of the adjustments shown on Schedule C-1 are shown on Schedule C-2. The adjustments to operating revenues and expenses were made to obtain a more normal or realistic relationship between revenues, expenses and rate base.

Adjustment 1 removes sales taxes recorded in revenues in the test year from test year revenues.

Adjustment 2 increases revenues to eliminate billing adjustments recorded in revenues during the test year.

Adjustment 3 removes water hauling costs recorded in the test year. These costs will be covered by the Company's proposed adjuster mechanism discussed later in my testimony.

Adjustment 4 decreases operating and maintenance expenses to a level expected in future years dealing with repairs to aging plant and addressing water loss issues. Maintenance expenses increased dramatically from 2001 to 2002 and are primarily the result of repairing system leaks to prevent water loss.

Depreciation expense is annualized in adjustment 5. The proposed depreciation rate for each component of utility plant is on shown on Schedule C-2, page 6. The Company currently has two different rates for its plant. The old Williamson system currently has a composite rate of 2.35% and the old E&R system has a composite rate of 2.62%. The Company is proposing individual rates for each plant account. This produces a composite rate of 3.64% for the test year. The depreciation calculations include plant that is currently under construction and will be completed by December 31, 2003, as well as amortization of the Company's contributions-in-aid of construction.

The adjustment labeled as 6 increases the property taxes based on proposed revenues.

Q. YOU COMPUTED THE PROPERTY TAXES AT PROPOSED RATES?

A. Yes. I used the method employed by the Arizona Department of Revenue - Centrally Valued Properties ("ADOR" or "the Department"). This method determines the full cash value by using twice the average of three years of revenue, plus an addition for CWIP, and a deduction for the book value of transportation equipment.

The assessed value (25% of full cash value) multiplied by the property tax rate results in the property tax. In the instant case, I used the unadjusted revenues

for 2002 (excluding sales tax), the adjusted revenues for 2002, and the revenues at proposed rates.

Q. IS THIS SYNCHRONIZATION OF PROPERTY TAX EXPENSE WITH REVENUES PROPER RATE MAKING?

A. Yes it is. For example, an adjustment of this nature was specifically addressed and approved in Decision No. 60826 (April 13, 1998) for Far West Water Company. Like income taxes, property taxes must be adjusted to ensure that the new rates are sufficient to produce the authorized return on rate base, otherwise the utility faces immediate loss of adequate revenue to cover operating expenses. In contrast, Staff normally proposes that property taxes and resulting full cash value be computed using three historic years. Again, however, this method of computing adjusted property taxes ensures that the utility will not earn its authorized rate of return because property tax expense is a direct function of revenues and will increase as revenues increase.

Q. WHAT ABOUT THE LAG FROM THE TIME THAT NEW RATES CHARGED CUSTOMERS GO INTO EFFECT AND THE DATE THAT THE PROPERTY TAX IS ACTUALLY PAID?

A. If new rates went into effect on January 1, 2003, by way of illustration, the property tax bill based on these new rates would be received around September 2004. However, the Company should be accruing property taxes to match the revenues collected so there will be no mismatch between revenues and expenses. Further, the property taxes resulting from my calculation are based upon a portion of proposed revenues. To properly consider the future impact of the rate increases, I should have computed the proposed property taxes based only on proposed revenues rather than averaging proposed and historic revenues. Consequently, this adjustment is conservative.

Q. PLEASE CONTINUE WITH YOUR DESCRIPTION OF THE INCOME STATEMENT ADJUSTMENTS.

A. Adjustment 7 reflects rate case expense. The costs associated with the instant rate proceeding are amortized over 3 years. I should note that the rate case expense might be viewed as high for a Class "C" water utility. However, this rate proceeding, and the problems the Company faces are extraordinary. For instance, in this rate filing, Pine Water was under Commission order to prepare a new rate design, a customer education program, and a plan for addressing ongoing water supply problems. Pine Water is a small company facing big problems and it cannot seek the relief it needs and meet Commission directives without significant outside assistance, which results in what might be viewed as higher than expected rate case expense for a Class "C" rate case.

Adjustment 8 removes other income and expenses to eliminate their effects on the determination of the revenue requirement.

Adjustment 9 increases interest expense to reflect additional interest from the new debt of $178,000.

Adjustment 10 reduces legal costs during the test year to an amount expected on a going-forward basis. High legal costs have been incurred in recent years and are expected continue as Pine Water deals with continuing water supply issues as well as the defense of its CC&N against Gila County and local development interests intent on increasing development of the Pine area despite the water supply problems.

Adjustment 10 increases office expense for the estimated annual costs of implementing a Customer Education Program. This program, ordered by the Commission in Decision 65435 (December 9, 2002), is part of Pine Water's efforts to educate customers about conservation.

Adjustment 12 increases revenues from the annualization of customers.

Q. DOES THAT CONCLUDE YOUR TESTIMONY ON THE RATE BASE AND INCOME STATEMENT?

A. Yes.

IV. RATE OF RETURN

Q. WHAT IS THE PURPOSE OF THIS PHASE OF YOUR TESTIMONY?

A. I will testify regarding the appropriate overall rate of return to allow Pine Water to provide quality service to its customers while fairly compensating shareholders for their investment. The equity rate of return is adjusted for business risk and/or financial risk. The equity return must provide meaningful interest and debt service coverage, as applicable.

Q. HOW WILL THIS PORTION OF YOUR TESTIMONY BE ORGANIZED?

A. My rate of return testimony is organized as (A) proposed conversion of inter-company payable to long-term debt and equity; (B) summary of the equity return and overall rate of return; (C) discussion of cost of capital in general; (D) Overview of the cost of capital; (E) cost of common equity capital for Pine Water; (F) specific risks faced by Pine Water, and (G) test of financial integrity for Pine Water.

A. Proposed Conversion Of Inter-Company Payable To Equity And Long-Term Debt

Q. PLEASE EXPLAIN THE COMPANY'S PROPOSAL TO CONVERT THE INTER-COMPANY PAYABLE AT DECEMBER 31, 2002 TO EQUITY AND LONG-TERM DEBT.

A. As shown on Schedule E-1, Pine Water has an inter-company payable balance of $533,599 to its parent, Brooke Utilities, Inc. ("Brooke Utilities"), as of December 31, 2002. This liability has grown appreciably since 1999 and has not been paid.

The probability that Pine Water can pay this obligation in a timely manner, even under the proposed rates, is very low. As a consequence, the Company proposes to convert $355,599 and $178,000 of the inter-company payable to equity and long-term debt, respectively. This will relieve some of the financial pressure on Pine Water by eliminating a large portion of the payable altogether and provide for a repayment of the balance over a reasonable period of time. Cost of capital schedules, D-1 and D-2, reflect the proposed conversion.

Q. WHY DOES THE COMPANY OWE THIS SIGNIFICANT SUM TO BROOKE UTILITIES?

A. The amounts owed relate to wheeling charges owed to Brooke Utilities for deliveries of water through Project Magnolia, the water transmission project owned and operated by Brooke Utilities, described in more detail in Mr. Hardcastle's direct testimony. Pine Water has not been able to pay all its operating expenses as well as fund plant additions in the past few years. Operating expenses have exceeded revenues for several years as reflected by operating losses. In order to pay the Company's obligations to others, it did not pay its obligations to Brooke Utilities. In essence, the Company used short-term debt to fund long-term assets (the plant additions), as well as fund its cash flow needs for operating expenses.

Q. WHAT ARE THE PROPOSED TERMS OF THE LOAN?

A. The Company proposes a 5 year note at an interest rate of 10 percent.

Q. IS THE LOAN FOR PLANT?

A. Yes, because the money that could have been paid to Brooke Utilities was used to build plant. Pine Water has added approximately $103,000 of plant since 2000 and will add approximately another $75,000 of plant by the end of 2003.

Q. COULDN'T PINE WATER GET A BANK LOAN AT A LOWER

INTEREST RATE?

A. No, the Company is not credit worthy. Its current financial condition and current cash flow preclude it from finding a willing 3rd party lender. If Pine Water could find a willing 3rd party lender, a loan would be considered high risk and would receive a corresponding high interest rate. Ten percent is not unreasonable and is far less than would be offered by lenders, if one were willing, given Pine Water's current financial condition.

Q. DOES THE CONVERSION OF THIS PAYABLE TO EQUITY AND DEBT IMPROVE PINE WATER'S FINANCIAL CONDITION?

A. Yes. The conversion will eliminate the negative common equity balance and raise it to over $200,000. Further, the loan provides Pine Water the ability to pay over an extended period of time, releasing pressure on its cash flow needs. The debt ratio will be reduced from over 70% to approximately 38%. While this is still a high debt ratio for a small company, it is greatly improved by the conversion.

The current ratio, a measure of liquidity, also improves from .06 to .33. The current ratio is still very low, at the low end of the comparable companies used in my analysis of cost of capital. Anything less than 1.0 is a sign of a firm's inability to pay its obligations in a timely manner. However, under the Company's proposed rates, the current ratio should improve over time to a healthier level.

Q. WILL PINE WATER BE ABLE TO SERVICE THE LOAN?

A. If the Company's proposed revenue increases are approved there would be sufficient cash flow by the time loan repayment begins to meet the obligation.

B. <u>Rate Of Return Summary</u>

Q. WOULD YOU PLEASE SUMMARIZE YOUR RECOMMENDED EQUITY RETURN?

A. Yes. My findings and recommendations are as follows:

- The actual and estimated costs of equity derived from my analysis range from 9.27% for 10.50% for large publicly traded companies for 2003 and 10.50% to 11.50% for the years 2005-2007.
- Pine Water's cost of common equity cannot be calculated because it is not publicly traded.
- Pine Water faces tremendous business and financial risks that cannot be ignored and must be considered in the determination of the cost of equity. These risks demand a significantly higher rate of return compared to large publicly traded water companies.
- In my opinion, the cost of equity for Pine Water should be no less than 12.00% to compensate investors for the risk on their investment.
- The overall cost of capital using a 12.00% cost of equity, after converting the inter-company payable to equity and debt, as proposed, is 10.93%
- In my opinion, the overall cost of capital of 10.93% is required for Pine Water's ability to maintain and support its credit and attract capital necessary to fund the needed water augmentation plant improvements.

The computations for actual and estimated equity returns are summarized on Schedule D-4.1. The methods employed to derive the cost of capital were authorized, actual and projected comparable earnings from Value Line and from the C.A. Turner publication, and the discounted cash flow method. A higher equity return (than the Value Line expected return of 10.50% for 2003), and results of the discounted cash flow method of 9.27% is requested due to the substantial risks faced by Pine Water which is much smaller than the companies from which the 10.50% and 9.27% returns were derived.

The common equity return computations are shown on Schedules D-4

through D-4.24, respectively. A summary comparison of the financial integrity of Pine Water to the seven nationally water companies from Value Line is set forth in Schedule D-4.7. Pine Water is categorized as "Distressed."

C. Discussion Of Cost Of Capital In General

Q. HOW WILL THIS PORTION OF YOUR TESTIMONY BE ORGANIZED?

A. My testimony starts with a discussion of the factors that must be considered in determining an investor's required return, such as risk, and the legal standards that need to be analyzed and met when determining a utility's cost of capital or rate of return. In light of these standards, and after recognition of all risk factors, a rate of return on an original cost rate base was developed for setting rates on a prospective basis, using seven nationally traded water utilities from Value Line, dated January 31, 2003 (from both the standard and the Small and Mid-Cap editions). I have included Southwest Water in my computations to use the same sample group as the Commission Staff. Notably, however, Southwest's amount of revenue from water sales, which is only 41% of the Company's total revenue, while the remaining six water companies derive at least 90% of their revenue from water sales. These seven water companies listed in Value Line are traded on the New York Stock Exchange, the American Stock Exchange, or the NASDQ (National Over-The-Counter Exchange). All are considered "large" utilities, when compared to Pine Water. The market values of the seven water companies range from a high market value of $1.443 billion to $129 million at December 31, 2002.

To test whether the return determined for my sample companies is realistic, attainable and/or sustainable, I examined these seven nationally traded water utilities' financial integrity and compare that to Pine Water.

Q. HAVE YOU PREPARED EXHIBITS TO DEMONSTRATE THE COST OF CAPITAL AND FAIR RATE OF RETURN IN THIS PROCEEDING?

A. Yes. These Schedules are labeled as "D".

Q. HOW DID YOU DERIVE YOUR COST OF COMMON EQUITY?

A. I computed the required investor returns by using Value Line's nationally traded water utilities that have organized trading on national markets to derive investor expected returns using the Discounted Cash Flow method ("DCF"), the rates of return currently being earned by the water companies followed by C. A. Turner, and the authorized rate of returns for these same companies, and the expected rate of returns from Value Line for 2003 and the years 2005 - 2007. Schedules D-4.1 through D-4.6 contain the results of the DCF. Using the water companies listed in the January 31, 2003 Value Line, the DCF method produced an investor expected return on common equity of 9.27% using spot prices at April 16, 2003.

This return has not been adjusted for the magnitude of the risks faced by Pine Water. (*See* Schedule D-4.8). To these unadjusted investor expected returns, risk factors would have to be added. There is a high degree of financial and business risk associated with an investment in Pine Water compared to the nationally traded water utilities. In my opinion, the cost of equity for Pine Water, adjusted for risk, produces an investor expected return of no less than 12.00% on common equity.

Q. PLEASE DESCRIBE HOW YOU COMPUTED THE COST OF CAPITAL USING THE DCF METHOD?

A. In the DCF method, the dividend yield and dividend growth are added to derive the estimated return on common equity.

Q. I NOTE THAT YOU HAVE NOT COMPUTED COST OF CAPITAL BASED ON THE CAPITAL ASSET PRICING MODEL, OR CAPM. WOULD YOU EXPLAIN WHY YOU DID NOT USE THE CAPITAL ASSET PRICING MODEL?

A. The Capital Asset Pricing Model method is producing a very low return due to the Federal Reserve System keeping interest rates extremely low to stimulate the economy. Returns on United States Government debt instruments maturing in 5 years or less are probably at the lowest level that has been seen for a number of years. Unless one uses a long-term government obligation, the results produced by the CAPM method do not appear reasonable.

Q. PLEASE EXPLAIN HOW REGULATORY COMMISSIONS ESTABLISH THE PRICE THAT CONSUMERS SHOULD PAY FOR UTILITY SERVICES?

A. The determination of the prices a utility can charge may be separated into two distinct issues: (1) the relative structure of prices and (2) the overall level of prices. The latter is normally determined first and simply relates to the total revenue that the utility should receive in a given time period and for a given amount of service ("Revenue Requirement"). The former refers to the specific process for determining the rates to be charged various classes and types of customers for the particular services provided. Obviously, these rates should also produce the targeted revenue requirement.

Q. FOCUSING ONLY ON THE REVENUE REQUIREMENT ASPECT, HOW SHOULD RATES FOR A REGULATED UTILITY BE DETERMINED?

A. It is widely accepted that, under regulation, a utility should be authorized to charge rates equal to its cost of service.

Q. HOW IS COST OF SERVICE MEASURED?

A. Cost of service is defined as the sum of: (1) reasonable operating expenses; (2) depreciation and amortization expenses; (3) taxes; and (4) a fair return on the net property valuation. This is summarized in the following simple equation: $r = e + d + t + (p - d)k$ where r represents the total revenue requirement (cost of service);

e represents all allowable operating expenses; d represents depreciation and amortization expenses; t represents taxes; p represents the gross value of the utility's property; d is accumulated depreciation and amortization; and k is the rate of return allowed on the utility company's rate base expressed as a percentage. As the formula suggests, the rate making process is broken down into three separate steps: a determination of the utility's allowable operating expenses (e); identification of the utility's rate base (p - d); and the determination of a reasonable rate of return (p-d)k.

Q. PLEASE ELABORATE FURTHER ON EACH OF THESE THREE STEPS.

A. Historically, two of the three basic steps in the rate determination process have proven to be the most controversial, i.e., net valuation of the utility's tangible property (p - d) and identification of a reasonable rate of return (k). The reasonable operating costs of an efficiently run utility have proven to be somewhat less contentious. Often, however, there is considerable disagreement between utilities and regulatory bodies regarding what represents reasonable costs of doing business as well as how certain costs should be calculated and/or allocated.

Q. WHY HAS THERE BEEN SO MUCH CONTROVERSY WITH RESPECT TO THE VALUATION OF UTILITY PROPERTY?

A. Because the valuation of plant and equipment is the largest component of rate base. Accordingly, the method of measurement becomes a critical issue to the utility since its cost of service or total revenue requirement, other things remaining the same, increases directly with the size of its rate base.

Q. WHAT PRINCIPAL VALUATION METHODS MAY BE APPLIED TO A UTILITY'S PROPERTY IN ORDER TO MEASURE THAT COMPONENT OF RATE BASE?

A. Essentially, there are three valuation methods that have historically been used: (1)

actual or historical cost less depreciation; (2) reproduction cost new less depreciation ("RCND"); (3) and fair value. Historical or actual cost includes both the construction and acquisition cost of the properties. RCND is the cost of duplicating the existing plant and equipment at current prices, less depreciation. Fair value is a composite method which could consider both actual cost and RCND. Arizona is a fair value jurisdiction. The fair value method originated following the decision of the United States Supreme Court in *Smyth vs. Ames*, 169 U.S. 466 (1898), which was the law of the land at the time Arizona achieved statehood. Thus, this doctrine became embodied in the Arizona Constitution (Article 15, Section 14). In the instant case, Pine Water is only filing an original cost rate base. That is, the fair value of the investment (the original cost of the plant, less the accumulated depreciation plus/minus other additions and deductions to the Company's rate base, that is being used to provide service to the Company's customers is entitled to a fair return. As original cost is be used for fair value that return should be a fair and reasonable return on the equity investment and the debt investment used to finance the Company's rate base.

Q. WHAT IS THE SIGNIFICANCE OF THESE THREE METHODS?

A. Each of these methods of evaluation would yield approximately the same result if nominal factor input prices were constant over time. However, price stability has not been the rule throughout most of this century. As a result, this factor alone accounts for much of the controversy over the appropriate valuation of tangible property.

The effect of price instability on the method of valuation may be illustrated as follows. Assume that actual historic cost is the selected method of valuation in a period that is marked by inflation. The most obvious effect is that during this inflationary period, other things remaining the same, the use of original cost rate

base results in a declining real rate of return. This is true because, as inflation progresses, a return that remains constant in dollars represents less purchasing power than before the increase in prices. In those circumstances, both common stockholders and bondholders are affected. The common stockholder may suffer a decline in the real value of his or her investment. Moreover, dividends will be paid in dollars with less purchasing power than that of the dollars invested. Similarly, bondholders in a period of inflation would be affected both because bond coverage would not rise as it would in a non-regulated industry and because principal and interest payments will be made in "cheaper" dollars.

Q. I REALIZE THAT YOU ARE NOT AN ATTORNEY, BUT COULD YOU DESCRIBE THE HISTORICAL CONTROVERSIES CONCERNING RATE BASE AND HOW THEY WERE RESOLVED?

A. Yes. In a landmark United States Supreme Court decision, *Federal Power Commission vs. Natural Gas Pipeline Company*, 315 U.S. 575 (1942), the Court ruled that the U.S. Constitution did not require regulatory agencies to use any one formula or combination of formulae in the rate making process. A majority of the Court held that it was the result reached, not the method employed, that was controlling. In other words, it was not the theory, but the impact of the rate order that counted for Constitutional purposes. Later, in *FPC v. Hope Natural Gas*, 320 U.S. 591, 603 (1944), the Court underlined and amplified this "end result" doctrine stating that:

> The fixing of just and reasonable rates involves a balancing of the investor and the consumer interests. The investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue for not only operating expenses, but also for the capital cost of the business. These include service on the debt and dividends on the stock. By that standard, the return to the

> equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return moreover, should be sufficient to assure confidence to the financial integrity of the enterprise so as to maintain its credit and to attract capital.

This clarified the earlier opinion of the Court in *Bluefield Water Works and Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679, 692-93 (1923):

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments on other business undertaking which are attended by corresponding risks and uncertainties. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management to maintain and support its credit and enable it to raise money necessary for the proper discharge of its public duties.

Taken together, the *Natural Gas Pipeline*, *Hope Natural Gas* and *Bluefield Water Works* decisions provide the foundation for virtually all later cases dealing with the issue of rate of return. In summary:

1) The rate of return should be similar to the return in businesses with similar or comparable risks;

2) The return should be sufficient to ensure confidence in the financial integrity of the utility;

3) The return should be sufficient to maintain and support the utility's credit; and

4) The return should enable the utility to attract capital necessary for the proper discharge of its duties.

Q. YOU CITED THE HOPE CASE IN YOUR RESPONSE TO MY LAST

QUESTION. IS THE HOPE CASE'S "END RESULT" TEST CONSISTENT WITH ARIZONA LAW?

A. No, due to the fair value requirements set forth in the Arizona Constitution, as cited in the *Simms v. Round Valley Light & Power* case.

Q. HOW HAVE THESE TESTS OF REASONABLENESS BEEN APPLIED IN REGULATORY PROCEDURES?

A. As practitioners in the field know, the application of the "reasonableness" criteria laid down in these Supreme Court cases has resulted in new areas of controversy. For example, the increasing regulatory emphasis on objectivity in determining rate of return has resulted in a proliferation of quasi-mechanical techniques and formulae for use in rate of return determination. As will be discussed more fully below, none of the techniques introduced has been universally accepted.

While there is no consensus regarding the best method of measuring return, there is general agreement that the cost of capital is the most acceptable basis for determining a fair rate of return on an original cost rate base. The method of computing the cost of capital is quite straight-forward: it is the composite, weighted cost of the various classes of capital (debt, preferred stock, common equity, and retained earnings) used by the utility. The weighting is done by calculating the proportion that each class of capital bears to total capital. The capital cost concept is a direct application of the judicially enunciated capital attraction/financial integrity test and is based upon the theory that the utility should be allowed a rate of return sufficient to maintain the financial integrity of the enterprise and to allow the utility to attract new capital when necessary.

D. <u>Overview Of The Cost Of Capital</u>

Q. COULD YOU BRIEFLY COMMENT ON THE ECONOMIC AND FINANCIAL STANDARDS GOVERNING THE COST OF CAPITAL?

A. The cost of capital to an enterprise at any given time is the result of supply and demand forces, both general and firm specific, economic and business conditions, prospects for inflation, and individual judgments regarding alternative opportunities in the marketplace where capital is hired. If, in the opinion of those who save and commit capital, the prospective return from a given investment is not equal to that from other investments of corresponding risk, the capital will tend to be shifted to the other investments. In this way, the free market system promotes an efficient allocation of scarce resources by directing capital, through appropriate pricing signals, to its most productive uses. Therefore, the cost of capital is an opportunity cost. It is the prospective return to investors from investments of similar risk. This alternative return or opportunity cost is, by definition, the utility's cost of obtaining and maintaining its capital.

Q. IS THE COST OF CAPITAL OR OPPORTUNITY COST CONCEPT YOU DESCRIBED CONSISTENT WITH THE LEGAL CRITERIA GOVERNING THE FAIR RATE OF RETURN?

A. Yes. The cost of capital should be commensurate with the return being realized on alternative investments of corresponding risk and is ordinarily sufficient to promote and maintain confidence in the financial integrity of the utility and to sustain its credit. Furthermore, it is also consistent with the competitive value standard, which states that public utility regulation should attempt to approximate the financial conditions that would exist under competitive conditions, particularly the profits that would be earned if the industry were competitive.

Q. HOW IS THE COST OF CAPITAL FOR A PARTICULAR UTILITY DETERMINED?

A. The measurement of a utility's cost of capital is a complex topic. It requires an analysis of the factors influencing the cost of various types of capital, i.e., interest

on long-term debt, dividends on preferred stock, and earnings on common stock equity. Each of these sources of funds has a cost. The unit cost of the various component sources of capital is an important input into the calculation of a utility's overall cost of capital.

The data for such an analysis comes from the capital market where the firm raises funds by issuing common stock, selling bonds, and by borrowing (both long and short term) from banks and other financial institutions. In the highly competitive capital markets, the cost of capital, whether the capital is in the form of debt or equity, is determined by two important factors:

1) The pure or real rate of interest, often called the risk-free rate of interest; and

2) The uncertainty premium (the compensation the investor requires over and above the real or pure rate of interest for subjecting his capital to uncertainty).

The pure rate of interest essentially reflects both the time preference for, and the productivity of, capital. From the standpoint of the individual, it is the rate of interest required to induce the individual to forego present consumption and offer the funds thus saved to others for a specified length of time. Moreover, the pure rate of interest concept is based on the assumption that no uncertainty affects the investment undertaken by the individual, i.e., there is no doubt that the periodic interest payments will be made and the principal returned at the end of the time period. In reality, investments without risk do not exist. Every commitment of funds involves some degree of uncertainty. U.S. Government obligations, however, may at times approach something like a risk free rate of interest. It must be pointed out, however, that U.S. Treasury obligations are only "risk free" in the sense that they are hopefully free of default risk. Holders of

these obligations still face the dangers of purchasing power loss (inflation risk) and the loss of capital values if real interest rates rise (interest rate risk).

Turning to the second factor affecting the cost of capital, it is generally accepted that the higher the degree of uncertainty, the higher will be the cost of capital. This comes from the fact that investors are perceived to be risk adverse and require that the rate of return increase as the risks (uncertainty) of an investment increase.

Q. HOW DOES THE RISK-RETURN TRADE-OFF CONCEPT WORK IN THE CAPITAL MARKET?

A. As I have already suggested, the allocation of capital in a free market economy is based upon the relative risk of and expected return from an investment. In general, investors tend to rank investment opportunities in order of their relative risk occurrence. Investment alternatives where the expected return is commensurate with the perceived risk become viable investment options. If all other factors remain equal, the greater the risk, the higher the rate of return investors will demand to compensate for the possibility of loss of either the principal amount invested or the expected annual income from such investment.

Q. WOULD YOU PLEASE DISCUSS IN MORE DETAIL THE IMPACT OF RISK ON CAPITAL COSTS?

A. Yes. With reference to specific utilities, risk is often discussed under two separate headings, the first being business risk and the second being financial risk.

Business risk, the basic risk associated with any business undertaking, is the uncertainty associated with the enterprise's day-to-day operations. In essence, it is a function of the normal day-to-day business environment, both locally and nationally. Business risks include the condition of the economy and capital markets, the state of labor markets, regional stability, government regulation,

technological obsolescence, and other similar factors that may impact demand for the business product and its cost of production.

Another risk utilities face is the ever-changing regulatory climate. Water utilities are subject to strict regulation because of the health and risks associated with their operations. The environmental rules are continually changing, as the Environmental Protection Agency is charged with determining new contaminants, and reevaluating the existing standards.

Q. PLEASE CONTINUE.

A. The greater the degree of uncertainty regarding the risk factors, the greater the risk. The greater the risk, the greater the compensation required by the investor for her or his investment. Moreover, the smaller the utility, the greater the impact on net income.

Financial risk, on the other hand, concerns the distribution of business risk to the various capital investors in the utility. As discussed earlier, permanent capital is normally divided into three categories: long term debt, preferred stock, and common equity. Because common equity owners have only a residual claim on earnings after debt and preferred stockholders are paid, financial risk tends to be concentrated in that element of the firm's capital. Thus, a decision by management to raise additional capital through the issue of senior debt concentrates even more of the financial risk of the utility onto common equity owners.

Although usually discussed separately, the two types of risks are interrelated. Specifically, a common equity investor may seek to offset exposure to high financial risk by investing in a firm with a perceived low degree of business risk. In other words, the total risk to an investor would be high if the enterprise was characterized as a high business risk with a large portion of its

permanent capital financed with senior debt. To attract capital under these circumstances, the firm would have to offer higher rates of return to its common equity investors.

Q. IS THERE A RELATIONSHIP BETWEEN A UTILITY'S CAPITAL STRUCTURE AND ITS COST OF CAPITAL?

A. Generally, it is well understood that when a firm engages in debt financing, it exposes itself to risks that, once debt becomes significant relative to the total capital structure, increase in a geometric fashion compared to the linear percentage increase in the debt ratio itself. This risk is illustrated by considering the effect of leverage on net earnings. For example, as leverage increases, the equity ratio falls. This creates two adverse effects on the investor. First, equity earnings decline rapidly and may even disappear. Second, the "cushion" of equity protection for debt falls. A decline in the protection afforded debt holders, or the possibility of a serious decline in debt protection, will act to increase the cost of debt financing. From the above example one may conclude that each new financing, whether using debt or equity, effects the marginal cost of future financing by any alternative method. For a firm that is already believed to be too highly leveraged, this additional borrowing would cause the marginal cost of both equity and debt funds to increase. On the other hand, if the same firm were instead to employ equity funding, this could actually reduce the real marginal cost of additional borrowing, even if the particular equity issuance were at a higher unit cost than an equivalent amount of debt.

The theoretical optimum ratio of debt to equity in the capital structure will vary considerably from one industry to another and, to a very significant extent, among companies within a given industry, based on size of the utility and its ability (or inability) to attract capital. This variability complicates the problem of

establishing criteria to serve as guides in postulating a theoretical optimum financial structure. As a result, it is necessary to settle for broad general principles rather than rules of precision. With respect to utilities, an appropriate rule of thumb might be as follows:

1) The capital structure for a given utility should fall within a reasonable range given the utility's particular circumstances. If the capital structure approximates the industry range, it is within a range of reasonableness and no additional test is necessary, especially if both firm-specific business and financial risks have been taken into consideration in selecting the industry range of capital structures.

2) A theoretically balanced capital structure is one which will provide debt with adequate protection, yet contains enough leverage to produce equity earnings sufficient to attract new equity capital (but not so large a degree of leverage as to introduce earnings instability and render equity investment speculative). For smaller utilities, financial leverage often has detrimental impacts with very slight increases in expenses. As a consequence, smaller utilities cannot support the same percentage of debt in their capital structure as a larger utility.

Q. FROM YOUR TESTIMONY, I WOULD CONCLUDE THAT THE TERMS "RISK" AND "UNCERTAINTY" HAVE THE SAME MEANING. IS THAT TRUE?

A. Technically, no. Risk is susceptible to measurement and thus to predictability within the limits of probability analysis. Risks such as death, fire, illness, etc., are readily insured against when large numbers are used. Uncertainty, on the other hand, is not susceptible to measurement and thus cannot be predicted and insured against. It is uncertainty, in this sense, which is the basis of competitive profits and that which the investors weigh in establishing their required return. Investors

consider and analyze the various factors that impact the uncertainty of an investment. Based on their subjective evaluation of the relative uncertainty associated with alternative investments, they select the most desirable investments in terms of expected returns or profits. In regulatory proceedings and by common convention, however, the two terms are used interchangeably, and I will follow this convention in my testimony.

Q. WOULD YOU BRIEFLY DESCRIBE THE APPROACH YOU FOLLOWED IN YOUR COST OF CAPITAL STUDY?

A. As previously noted, the proper measure of the cost of capital to a firm or the fair rate of return on capital is the opportunity rate of return on investments of equivalent risk. Thus, the development of an appropriate return for a regulated enterprise involves, first, a determination of the level of risk associated with that enterprise and, second, the calculation of the return appropriate to that risk level. This return must allow the utility to attract new capital when necessary, without diluting the financial positions of current investors.

There are several elements to determining firm-specific risk. The capital structure of the utility will be evaluated in terms of its impact upon the financial risk of the enterprise and on equity investors in particular. Some of the factors that have an impact on business risk in that industry will also be examined. The next step will be to analyze the various components of capital cost to the company. The final step will compare the company's capital structure to those of the selected comparison group. Based on what is determined to be an appropriate capital structure, an overall cost of capital or rate of return for the company will be determined. This expanded capital structure will consist of the traditional long-term debt and equity, plus advances in aid of construction, contributions in aid of construction, deferred investment tax credits and deferred income taxes. (*See*

Schedule D-4.13).

E. Cost Of Common Equity Capital For Pine Water.

Q. HOW IS THE COST OF COMMON EQUITY DETERMINED?

A. A variety of techniques and methods are presently employed by analysts in estimating the cost of common equity. These methods fall into three general categories:

1) Subjective analysis;

2) Comparative analysis; and

3) Financial theory models.

Q. BRIEFLY DESCRIBE EACH OF THE THREE APPROACHES TO RATE OF RETURN ANALYSIS.

A. The subjective approach to estimating the cost of common equity is generally based upon experience in the financial markets and an "intuitive" feel for capital cost. In general, the subjective approach is much less precise than the other two methodologies and, therefore, is a less useful approach than the alternatives. The comparative earnings approach to the determination of common equity cost is a direct outgrowth of the seminal judicial opinions on rate of return. The *Bluefield* opinion suggests that opportunity cost, as defined in the economic literature, is the appropriate measure of the actual cost of common equity for a regulated utility. The proper application of this technique involves the direct observation of market returns, an assessment of the persistence of those returns, and an evaluation of the risk accepted to earn that return. Financial models are a relatively recent addition to the regulatory process. The use of these models involves the application of quantitative techniques to risk and return measurement.

Q. YOU STATED EARLIER THAT YOU USED SEVEN NATIONALLY TRADED WATER COMPANIES FROM VALUE LINE TO DERIVE A

COST OF EQUITY USING THE DISCOUNTED CASH FLOW METHOD. WHY ARE YOU USING THESE COMPANIES AND NOT PINE WATER ITSELF?

A. The DCF method measures the dividend yield and the growth in dividends expected by investors to derive the investor expected or required return. Calculating dividend yield requires some measure of market price for the utility's common stock. There is no market price available for Pine Water's stock because its stock is not publicly traded.

Q. HOW DID YOU DETERMINE THE COST OF EQUITY FOR PINE WATER?

A. Using the seven water utilities published by Value Line, I used the estimate of what investors in nationally traded water utility common stock should expect based on Value Line's projected equity return. Because Value Line is widely read, it provides an excellent indication of investors' expectations. I also computed the returns using the Discounted Cash Flow method and I relied on the return data published by C.A. Turner Utility Reports.

Q. HAVE THESE SAME SEVEN WATER COMPANIES AND THE DISCOUNTED CASH FLOW METHOD BEEN USED BY STAFF TO DERIVE THE INVESTOR EXPECTED RETURN ON COMMON EQUITY?

A. Yes. Staff has used these seven water utilities in other rate proceedings. Staff has also used the Discounted Cash Flow method to derive the common equity return. Additionally, Staff is now using the Value Line growth estimates as a part of a series of growth rates to estimate the return on common equity.

Q. WOULD YOU DESCRIBE THE DCF METHOD AND HOW IT CAN BE USED TO DERIVE THE INVESTORS' REQUIRED RETURN ON

EQUITY?

A. The dividend yield is the first component of the DCF method. It is defined as the expected annual dividend (the next dividend) divided by the present market price of the stock. To compute the dividend yield, I divided the actual dividend by the "spot prices" of the stock prices as of April 16, 2003. The resulting dividend yield was then multiplied by the dividend growth rates. I computed some of growth rates and used the growth rates as published by Value Line to derive the expected dividend yield. Additionally, I reviewed the average of the 52-week high and low prices, as well as prices at February 28, 2003, and March 31, 2003. The prices for the 52-week high and low approximately matched the April 16, prices. The prices at February 28, and March 31, 2003 were lower than the prices at April 16, 2003.

Q. IS THIS THE SAME METHOD THAT IS USED BY STAFF TO COMPUTE EXPECTED DIVIDEND YIELD?

A. Yes, Staff multiplies the actual dividend yield by 1 plus the dividend growth estimate to derive the projected dividend yield. However, Staff favors spot prices, thus I am using spot prices to minimize dispute.

Q. PLEASE CONTINUE.

A The expected dividend growth is the other component in the Discounted Cash Flow method. The investor in utility common stock anticipates regular growth in the annual dividend. This is compensation for the additional risk the common stock investor assumes. The returns were then averaged to measure the overall market for water companies.

Q. WHAT IS THE DIVIDEND GROWTH FACTOR?

A. The dividend growth factor is the growth in the dividends per share from one period to another period. I used the average of (1) actual 5-year earning per share growth, projected earnings per share growth; (2) 5-year actual dividend per share

growth; (3) projected dividend per share growth rate; (4) 5-year intrinsic growth rates; and (5) projected intrinsic growth rates to derive the growth rate.

Q. WOULD YOU PLEASE DESCRIBE HOW THE ABOVE GROWTH RATES ARE COMPUTED?

A. Yes. The actual 5-year earnings per share growth rate is from Value Line. The growth rate is an average of all the water companies. There was no number listed for Middlesex Water, so I computed a growth rate for that company.

The projected earnings per share growth rate is also from Value Line. The five year projection is only available for American States Water, California, and Philadelphia Suburban.

The 5-year dividend growth rate is also from Value Line. This measures the change in dividends (the growth) during the 5-year time frame.

Value Line uses the 1999 - 2001 dividends, as the basis for its projection of dividend growth to 2005 – 2007. The five year projection is only available for American States Water, California, and Philadelphia Suburban.

The 5-year intrinsic growth rate is basically the earned return on equity multiplied by the retention rate (earnings, not paid out as dividends), with a computation of the market value to the most recent stock market price, plus an addition for stock sales by the water companies. This is just a modification of the equity earning percentage times the retention ratio.

The projected intrinsic growth rate is basically the same as the 5-year intrinsic growth rate, with Value Line's estimated book value growth rate used. The projections are only available for American States Water, California, and Philadelphia Suburban.

Q. WHAT IS THE COST OF EQUITY FOR THE VALUE LINE GROUP OF WATER UTILITIES USING THE DISCOUNTED CASH FLOW

METHOD?

A. An investor in these water companies can expect to achieve an unadjusted return of 9.27% without the company-specific business risk associated with Pine Water. However, there is a major problem with the discounted cash flow method. The shares of stock in the smaller water utilities in the Value Line comparable companies are selling at higher prices due to the possibility of being acquired by the larger water utilities, or foreign entities.

Q. IS THE 9.27% RETURN PRODUCED BY THE DISCOUNTED CASH FLOW METHOD BASED ON ONE SHARE OF STOCK FROM EACH COMPANY?

A. Yes, I used one share of stock from each company. Measuring the return on one share of each of the evaluated water utilities results in the use of the portfolio approach, which is favored by Staff. Again to minimize dispute, I will use Staff's approach.

Q. WHAT RETURNS ARE BEING EARNED BY THE WATER UTILITIES FOLLOWED BY C.A. TURNER?

A. The water utilities followed by C.A. Turner are currently earning an average of 11.07% on equity, based on the published April 2003 data. The authorized rate of return is an average of 10.50%.

Q. WHAT RATES OF RETURN IS VALUE LINE PROJECTING?

A. Value Line projects a return for 2003 of 10.50%, and 11.50% for 2005 to 2007.

F. <u>Pine Water Specific Risks</u>

Q. WHAT RATE OF RETURN DO YOU CONCLUDE AN INVESTOR IN PINE WATER WOULD REQUIRE?

A. An equity or debt investor in a water utility such as Pine Water would not accept a return computed using the unadjusted return produced by the discounted cash flow

or comparable earnings methods because of the number of additional risks faced by the Company. These risks include:

- Inability to construct the necessary water plant (lack of internal cash flow to fund plant additions) and pay dividends;
- Low depreciation rate, coupled with a very high percentage of the Company's plant financed with contributions in aid of construction, further lowering the depreciation expense collected from customers.
- High financial risk due to substantial financing of plant with contributions in aid of construction.
- Service territory located in an area with severe water supply problems and coupled with a State wide drought, substantially impacts water sales from year- to- year. Water supply severely limits customer growth and growth in revenues. In addition, the Commission may not accept an adjustment to water sales to reflect a "normal" water supply year. Thus, depending on the water supply in the test year, the Company can expect to sell more or less water in the ensuing years. In the case of Pine Water, until a solution to the water supply problem can be addressed, the water sales in the instant test year for all intent and purposes is at or near the maximum. So, growth in water sales is unlikely to out pace growth in operating expenses. Thus, the rate of return proposed in the instant case may never be realized.
- High financial risk due the amount of financing needed to fund future plant requirements to address the water supply problems. As the Water Supply Augmentation Plan (Direct Testimony of Robert T. Hardcastle, Exhibit B) shows, substantial amounts of capital will need to be raised to explore new water resources with no guarantee that such investment will yield "wet" water. Much of this will need to be raised through long-term debt and/or

equity. With additional long-term debt, there will be increased financial risk to the stockholders. With additional equity investment, whether new or residual (retained earnings), investors will be faced with a significant risk of not earning a return on the additional capital because it is not clear which projects will be successful. The reason for this is that significant amounts of the firm's capital will have to be invested just to find out which projects to build, if any. Again, the projects may have only a marginal impact on water supplies.

- Use of a historic test year versus a forecasted test year.
- Increasing regulatory requirements imposed by U.S.E.P.A. and the Arizona Department of Environmental Quality, and rapidly changing regulatory recommendations by Staff.
- Small size. Pine Water would not even be considered a micro cap stock, if the stock were traded on an organized market, which makes financing much more difficult and expensive.
- Small size also makes the inconsistent regulatory climate much more expensive (impact on net income of a small utility compared to a "large" utility).
- Lack of ready access to capital markets.
- Inability to collect property taxes that actually will be incurred.
- Lack of diversification (e.g., multiple service areas and multiple regulatory bodies).
- Inability to pay dividends. An investment in the nationally traded water utilities results in dividends, or a cash return today. An investments in the Company results in calls for more investment.

Put simply, Pine Water is a very small business when compared to the

Value Line water utilities and the C.A. Turner water utilities. Its small size, limited revenues and cash flow, small customer base and lack of diversification (e.g., multiple service areas and multiple regulatory bodies), coupled with substantial resources and operational limitations, create significant business risk. This additional risk must be accounted for in determining the investor expected rate of return on common equity for Pine Water.

Q. DID YOU EXAMINE THE DIVIDENDS BEING PAID BY THESE NATIONALLY TRADED WATER COMPANIES TO THE BOOK EQUITY OF THESE SAME COMPANIES?

A. Yes, as a measure of the reasonableness of the equity return I am recommending. For the years ended 2002, 2001, and 2001, the dividends per share as a percent on per share book equity was 6.70%, 6.95%, and 7.03%. If you divide these returns by the payout ratio, you get rates of return of 10.15%, 9.92%, and 9.82% for 2002, 2001, and 2000.

Q. DOES THIS COMPUTATION MEASURE MARKET RETURNS?

A. No, but considering that I am recommending a return of 12.00% on a much riskier investment, Pine Water, the 10.15% return on equity confirms that the 12.00% requested return is reasonable and actually below what should be expected.

G. <u>Test Of Financial Integrity For Pine Water</u>

Q. DID YOU EXAMINE FINANCIAL DATA TO DETERMINE THE FINANCIAL INTEGRITY OF THE SEVEN NATIONALLY TRADED VALUE LINE WATER UTILITIES, WHICH YOU TERM THE "COMPARABLE COMPANIES?"

A. Yes. I examined dividends as a percentage return on book equity, interest coverage, earning retention ratios, dividend pay-out ratios, capital structures financing net plant (which include common and preferred equity, debt, advances

and contributions in aid of construction, and deferred income taxes), market to book ratios, the ratio of cash flow to change in gross plant, internal generation of cash as a percent of debt, safety margin, compound earnings growth, compound growth in book value, price earnings ratio, and earned returns on average common equity.

I computed the test of financial viability from Viability Policies and Assessment Method for Small Water Utilities, published by the National Regulatory Research Institute in June 1992 for both the Value Line companies and for Pine Water before and after the proposed conversion of the inter-company payable to debt and equity.

Both Pine Water's pre-conversion score and post-conversion score is lower than the comparable companies' scores. In fact, while there is improvement in the score after conversion, both scores are categorized as "Distressed." The reasons are due to fact that the Company has not paid a dividend on it stock, as the comparable water utilities have, and the fact that the common equity and retained earnings at the end of the test year are negative. The dollar amount of retained earnings substantially decreases Pine Water's final scores.

Q. PLEASE DESCRIBE THESE VARIOUS RATIOS AND THEIR SIGNIFICANCE IN MEASURING THE RELATIVE RISK OF AN EQUITY INVESTMENT?

A. The dividend as a percentage of book equity tells the investor the "cash return" percent return on book equity. This could be termed the rent on the funds the investors have provided. The dividend over the three year period has been as high as 7.10% and as low as 6.98%. The average has been 7.05%. Pine Water has never paid a dividend. Note that the computation using total equity and total dividends paid results in slightly different "cash return" than if the equity and

dividends are computed on a per share basis.

The interest coverage tells the debt investor the degree of risk to the timely receipt of interest payments. Schedule D-4.10 shows that the comparable companies have a pre-tax interest coverage of 3.33 to 1 for 2002, with an average coverage of 3.290 to 1 for the period 2000 to 2002. Pine Water had an interest coverage of a negative 30.82 for 2002, and an average interest coverage of negative 18.37 to 1 for the period 2000 to 2002.

The earnings retention ratio (shown on Schedule D-4.11) indicates how much of the current earnings have not been paid out in the form of dividends. This gives analysts/investors the ability to assess the chances of a dividend increase. A high retention ratio (low dividend pay-out ratio) for a utility indicates possible increased dividends in the future. The reinvestment of earnings also strengthens the common equity component of the capital structure lessening the financial risk. Schedule D-4.11 shows that the ratio has increased from 2000 compared to 2002 for the comparable companies. This ratio will be improved by rate increases, which lead to higher earnings and a higher retention ratio. Pine Water had a retention of 100% for all years, as it has never paid a dividend.

One minus the retention ratio results in the dividend pay-out ratio. The dividend pay-out ratio data is shown on Schedule D-4.12. The pay-out ratio has decreased from to 2000 to 2002. This would indicate that a dividend increase is possible. Pine Water's dividend pay-out ratio is zero, as the Company has not paid a dividend.

The comparable companies and Pine Water's capital structures (financing net plant) are shown on Schedule D-4.13. They tell the analyst/investor how each utility is financing its net plant. For the comparable companies, equity is approximately 32.52% of total capitalization (common and preferred equity) in

2002. The balance, or 67.48%, is financed by long-term debt, deferred income taxes, advances in aid of construction and contributions in aid of construction.

For Pine Water, the test year common equity before conversion equals a negative 34.96% of total capitalization, with the balance of 134.96% being financed with long-term debt and deferred credits at December 31, 2002. After conversion, common equity equals 21.29% of total capitalization, with the balance of 88.71% being financed with long-term debt and deferred credits. The deferred credits represent advances and contribution in aid of construction. The majority of the deferred credits are contributions in aid of construction, which get no return or depreciation recovery from customers. For the test year before conversion, Pine Water has over 4 times the deferred items financing the rate base as do the comparable companies. After conversion, Pine Water still has well over 1 1/2 times the deferred items financing rate base as the comparable companies. As the infrastructure wears out, the Company has to fund its replacement. This creates very high financial risk.

Page 3 of Schedule D-4.13 shows the impact of the financing of rate base with contributions in aid of construction. Assuming that an equity return of 12.00% was granted, the comparable companies would require an overall rate of return of 6.74% versus Pine Water's rate of return of a negative 2.82% before conversion and 4.52% after conversion. Even if you gross-up the equity returns for income taxes, the difference in the rates of return is substantial, and highlights the additional risk of the Company.

The market to book ratio shown on Schedule D-4.14 tells the reader how the investment community views the utility's book value per share compared to its market value per share. Water utilities are capital intensive. Therefore, it is reasonable to assume that investors realize that the book value of the assets is

considerably less than the current replacement value. It follows that common stock should be expected to sell at a premium compared to book value. Furthermore, stock must sell above book value to avoid dilution to the existing stock when additional stock is sold. At the end of 2002, the ratio of market to book is approximately 210%. The computations are shown on Schedule D-4.14. The Company's stock is not traded publicly, and thus computations are not shown.

Q. PLEASE CONTINUE.

A. The ratio of cash flow to change in gross plant tells the investor how much of the utility's plant additions are financed internally by earnings and depreciation. Additionally, this ratio indicates the possibility of a dividend increase, if there is excess cash flow. The seven comparable companies have internally generated funds accounting for approximately 64% of plant additions during 2002. As shown on Schedule D-4.15, Pine Water generated a negative 291% of its plant additions in the same manner for the year ended 2002. Again, there is a substantial difference, indicating the risk faced by the Company.

The internal generation of cash as a percent of debt is a measure of how quickly the utility could repay its debt from internal sources, assuming that no additional plant is added from these internal sources. Schedule D-4.16 contains the data for the comparable companies and Pine Water. The three-year average is 18.6% for the comparable companies (2000 to 2002). Pine Water's internal generation is a negative 262% for 2002.

The safety margin, shown on Schedule D-4.17, tells the investor the extent to which sales could decline, or expenses could increase, before the utility would experience a net loss. The three year average for the comparable companies is approximately 18.70%. Pine Water has a safety margin of approximately 1.8% for this same time period. In small water utilities, even slight changes in revenues

and expenses have a major impact on the safety margin. This is the "small size" risk I referred to previously.

The earnings growth allows the investor to determine if the dividend growth can be maintained. As shown on schedule D-4.19, the compound growth has been approximately 6.9% for the period 2000 through 2002, for the comparable companies. As costs of meeting the Safe Drinking Water Act and replacement of plant continue to increase, one can expect the comparable companies to continue to seek rate increases to maintain reasonable earnings. Pine Water's income growth rate was a negative 27.60% for the three year period.

The growth in book value tells the investor the amount of income that is being reinvested or retained in the business to fund needed plant additions, and strengthen the capital structure. This ratio is similar to the earnings retention ratio. Additionally, the book value would grow if the company sold additional shares of stock and/or equity additions were made. The comparable companies have a compound growth rate of 2.90% for the period 2000 through 2002 and shown on Schedule D-4.20. This growth was achieved primarily via earnings with some stock sales. Pine Water book value decreased 173.42% during this same period.

The price earnings ratio describes the level at which investors are valuing the earnings. As shown on Schedule D-4.21, the price earnings ratio has decreased from 2000 to 2002. A part of the price earning ratio is based on earning, while another factor is the possible acquisition of the smaller nationally traded utilities, by larger utilities. As Pine Water is not publicly traded, no price earnings ratio was computed.

The return on common equity tells the investor what return has been earned on book equity in the past. Note that the earned return (not the allowed return) on average common equity for the comparable companies has been 10.50% for the

period 2000 through 2002.

Pine Water's return on average equity was 17.66% for the three-year period. *See* Schedule D-4.22. This statistic is misleading, though, because the equity balance declined from $45,000 in 2000 to a negative $152,000 in 2002. Further, Pine Water has a much lower Financial Viability than the comparable companies. Its score of a negative 6.30, before conversion, and a negative 2.70, after conversion, would result in a score of "Distressed." The comparable companies have a score of 3.26, which is scored as "Weak." The scores are shown on Schedule D-4.23

Q. WHAT IS YOUR CONCLUSION ON THE EQUITY RETURN FOR PINE WATER?

A. An investor in the stock of a smaller Arizona utility is entitled to more return because he or she has more business and financial risk than an investor in the nationally traded water utilities. Investors in the nationally traded companies from Value Line and C.A. Turner would not encounter many of the risks faced by Pine Water. In the alternative, if the investors do face risks similar to Pine Water, the risks are not of the same magnitude. Higher risk requires a higher authorized return.

All of the nationally traded water utilities will experience additional business risk due to changes in water quality standards and other regulatory changes, and changes (increases and decreases) in the cost of short-term and intermediate debt. However, the impact of these uncertainties on Pine Water will be much greater due to its very small size in contrast to the size of the nationally traded water utilities.

It is important to note that the stockholders of Pine Water are not receiving a "cash" return in the form of regular dividends on their investment. In contrast,

all of the companies that have been compared to Pine Water are paying dividends. An investor offered the choice of $1.00 dividend today or $1.00 dividend ten or twenty years from today, would surely choose the $1.00 today.

Q. IS IT YOUR OPINION THAT PINE WATER SHOULD BE GRANTED A HIGHER RETURN ON EQUITY THAN MERELY THE COMPUTED RETURN FROM THE DISCOUNTED CASH FLOW, OR COMPARABLE EARNINGS METHODS?

A. Yes. As I previously testified, the discounted cash flow computations are being distorted by water utilities buying other water utilities. Business risks faced by Pine Water would substantially increase due to the unadjusted returns on equity from the discounted cash flow computations.

Q. WILL PINE WATER EARN YOUR RECOMMENDED 12.00% ON EQUITY UNDER THE PROPOSED RATES?

A. No. Expenses will continue to increase beyond the adjustments proposed on Schedule C-1 causing the return on equity to be unrealized. Pine Water also has severely limited growth in revenues. So, it is unlikely growth in revenues will out pace the increases in operating expenses. Additionally, plant additions will lower the rate of return.

Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY ON THE COST OF CAPITAL AND APPROPRIATE EQUITY RETURN?

A. Yes, it does.

V. <u>PROPOSED RATES AND CHARGES</u>

Q. WHAT ARE PINE WATER COMPANY'S PRESENT RATES?

A. Pine Water currently has two different rate structures due to the acquisition and reorganization of the former Williamson and E&R water systems. Rate Schedules for the old E&R system are identified as Rate Structure A and the old Williamson

system as Rate Structure B. The Company's present monthly minimum charges are listed below:

RATE STRUCTURE A

Meter Size	Monthly Minimum	Gallons included in Monthly Minimum
5/8 x 3/4	$18.45	0
3/4	$21.22	0
1	$24.54	0
1-1/2	$36.90	0
2	$64.58	0
3	$92.25	0
4	$147.60	0
6	N/A	0

The Commodity rate is:

$3.49 per 1,000 gallons (for usage from 1 to 4,000 gallons)

$5.95 per 1,000 gallons (for usage over 4,000 gallons)

RATE STRUCTURE B

Meter Size	Monthly Minimum	Gallons included in Monthly Minimum
5/8 x 3/4	$20.35	0
3/4	$30.53	0
1	$50.88	0
1-1/2	$101.75	0
2	$162.80	0
3	$305.25	0
4	$508.75	0

6	$1,017.50	0

The Commodity rate is:

$3.50 per 1,000 gallons (for usage over 0 gallons)

Q. WHAT ARE THE PROPOSED RATES?

A. The Company is proposing a single rate structure rather than the two that are currently in place, because there no longer is any justification for separate rate structures. The proposed monthly minimum charges are:

Meter Size	Monthly Minimum	Gallons included in Monthly Minimum
5/8 x 3/4	$22.14	0
3/4	$33.21	0
1	$55.35	0
1-1/2	$110.70	0
2	$177.12	0
3	$354.24	0
4	$553.50	0
6	$1107.00	0

The Company is proposing winter and summer rate schedules to promote conservation during periods of peak demand on the water supply. Winter months include: October, November, December, January, February, March, and April. Summer months include: May, June, July, August, and September. Highest use occurs in the summer months.

The proposed summer commodity rate for 3/4 inch and smaller meter size is $5.80 per 1,000 gallons for usage from 1 to 2,000 gallons. For water usage above 2,000 gallons and up to 8,000 gallons, the usage charge is $10.14 per

thousand. For water usage above 8,000 gallons, the commodity rate is $14.14 per thousand.

The proposed summer commodity rate for 1 inch and larger meter size is $5.80 per 1,000 gallons for usage from 1 to 10,000 gallons. For water usage above 10,000 gallons and up to 25,000 gallons, the usage charge is $10.14 per thousand. For water usage above 25,000 gallons, the commodity rate is $14.14 per thousand.

The proposed winter commodity rate for 3/4 inch and smaller meter size is $4.28 per 1,000 gallons for usage from 1 to 2,000 gallons. For water usage above 2,000 gallons and up to 8,000 gallons, the usage charge is $7.50 per thousand. For water usage above 8,000 gallons, the commodity rate is $11.50 per thousand.

The proposed winter commodity rate for 1 inch and larger meter size is $4.28 per 1,000 gallons for usage from 1 to 10,000 gallons. For water usage above 10,000 gallons and up to 25,000 gallons, the usage charge is $7.50 per thousand. For water usage above 25,000 gallons, the commodity rate is $11.50 per thousand.

Q. HOW DID YOU COMPUTE THE MONTHLY MINIMUMS BASED ON METER SIZES?

A. The monthly minimums are based on the flow capacity of each meter with the 5/8-inch meter being the base meter for pricing.

Q. WHAT IS THE RATE IMPACT ON RESIDENTIAL CUSTOMERS USING THE MONTHLY AVERAGE WATER USAGE?

For rate schedule 14 A:

- Customers on 5/8 meters who consume the average quantity of water in the summer (2,731 gallons per month) will experience a rate increase of $13.42 per month, or an increase of approximately

49%.

- Customers on 5/8 meters who consume the average quantity of water in the winter (1,988 gallons per month) will experience a rate increase of $5.46 per month, or an increase of approximately 22%.

For rate schedule 14 B:

- Customers on 5/8 meters who consume the average quantity of water in the summer (2,614 gallons per month) will experience a rate increase of $10.46 per month, or an increase of approximately 36%.
- Customers on 5/8 meters who consume the average quantity of water in the winter (1,707 gallons per month) will experience a rate increase of $3.13 per month, or an increase of approximately 12%.

Q. IS THE COMPANY REQUESTING ANY OTHER CHANGES IN ITS RATES AND TARIFFS?

A. Yes. The Company is requesting a change to the reconnection fee. The Company is also requesting other new charges. In particular:

- Cut Lock Fee for damages, removal, or otherwise tampering with a lock placed on the meter by the Company.
- Meter Removal Fee for removal of a meter due to water theft, tampering or failure to meet back flow assembly and testing.
- Illegal Supply Fee for customers who illegally supply water across property lines.
- Water Theft Fee for water loss created by a customer on customer's property though illegal or unauthorized activities resulting in water loss.
- Emergency Conservation Response Fee for after hours customer requests for immediate leak control on his/her property.

- Cross Connection Exposure Fee for property owners who do not meet or provide evidence of compliance with Commission requirements for backflow prevention device installation and testing.

The increases and new charges are shown on Schedule H-3, Page 3.

Q. WHAT OTHER CHARGES IS THE COMPANY PROPOSING?

A. The Company is proposing an adjuster mechanism to recover water sharing and water hauling costs. A similar adjuster is pending a decision by the Commission in the Company's interim rate filing.

Q. WHY IS THE COMPANY REQUESTING AN ADJUSTER?

A. The Company needs some assurance of recovery of increased purchased water costs as well as water hauling costs during times of critical water shortage. Historically, water hauling costs have been 10 times the normal costs of production and could increase dramatically in the future.

Q. HOW WOULD THE ADJUSTER MECHANISM WORK?

A. All the costs incurred would be collected from customers in the month following the month the costs are incurred. A per-gallon rate would be calculated by dividing the actual costs by the number of gallons sold. The per-gallon rate would then be multiplied by the customer usage to derive the amount to be billed.

Q. WOULD THERE BE A BASELINE?

A. Yes. The baseline is the adjusted test year purchased water expense amount of $64,262. This amount represents purchased water from water sharing agreements.

Q. ARE THERE ANY ADDITIONAL CHARGES THE COMPANY IS PROPOSING?

A. Yes. The Company's is proposing a $10 per month Water Exploration Surcharge. The purpose of this surcharge is to help allocate the risk of capital investment in an uncertain hydrological environment. For example, monies collected from the

surcharge could be used to help pay the upfront costs of determining which of the alternative water supply augmentation projects is viable. The Water Supply Augmentation Plan outlines several projects under consideration to address the chronic water supply problems in the Pine Water service area. These projects range from as low as $100,000 to as high as $5,000,000. The situation the Company faces is that it could costs hundreds of thousands or even millions of dollars just to find out which of the alternatives is viable. The surcharge will offset some of this risk. The surcharge will also help defray some of the costs of constructing plant, if there are funds left after exploring the viability of the alternatives.

Q. HOW LONG WILL THIS SURCHARGE BE COLLECTED?

A. For a minimum of 24 months, after which it might need to be revisited. For example, if it turns out the project identified as most viable is also the most costly, say $5,000,000, the Company would need to extend and possibly increase the surcharge. This is because the Company will not be able to service millions of dollars of debt.

Q. HOW MUCH WILL BE COLLECTED FROM CUSTOMERS?

A. The Company now has nearly 2,000 customers. At $10 from each customer per month for 24 months, the total amount collected would be over $450,000.

Q. WOULD THESE FUNDS BE SEGREGATED FROM OTHER COMPANY FUNDS?

A. Yes. The funds collected would be segregated and kept in an interest bearing account until used. Collection and expenditure would also be subject to certain reporting requirements.

Q. HOW WILL THESE AMOUNTS BE TREATED FOR ACCOUNTING AND RATEMAKING?

A. Any of the funds used for plant projects completed and placed into service will be booked as contributions-in-aid of construction. Amounts expended to explore alternatives that are abandoned (not viable) will be used to offset expenses paid.

Q. WHAT KINDS OF UPFRONT COSTS ARE REQUIRED TO DETERMINE A PROJECT'S VIABILITY?

A. Hydrological studies, condemnation valuations, exploration wells, environmental impact studies, as well as their associated legal costs, are among the types. *See* Direct Testimony of Robert T. Hardcastle, Exhibit B.

Q. HOW WILL THIS FUND BE MONITORED?

A. The Company will submit quarterly or semi-annual reports to the Commission detailing the amount collected, amounts expended, interest earned, and balance of the fund. Expenditures will be supported by invoices, descriptions of what the funds were used for, and any other supporting documentation necessary to determine the nature of the expenditure. This report will also be made available to customers upon request.

Q. HOW DOES THE COMPANY EXPECT TO FINANCE THE PLANT ADDITIONS ONCE A VIABLE ALTERNATIVE IS IDENTIFIED?

A. There is no doubt that the Company will not be able to fund any of the more expensive alternatives through internally generated cash and long-term debt alone. The Company may need to seek approval at the end of 24 months to extend the collection period or even increase the surcharge to supplement the cash requirements to construct the project. Again, additional funds collected and used would be treated as contributions-in-aid of construction.

Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

SCHEDULES

Pine Water Company
Test Year Ended December 31, 2002
Computation of Increase in Gross Revenue
Requirements As Adjusted

Exhibit
Schedule A-1
Page
Witness: Bourassa

Line No.					
1	Fair Value Rate base			$	680,032
2					
3	Adjusted Operating Income				(132,713)
4					
5	Current Rate of Return				-19.52%
6					
7	Required Operating Income			$	74,324
8					
9	Required Rate of Return on Fair Value Rate Base				10.93%
10					
11	Operating Income Deficiency			$	207,036
12					
13	Gross Revenue Conversion Factor				1.2993
14					
15	Increase in Gross Revenue				
16	Requirement			$	268,993
17					
18		Present	Proposed	Dollar	Percent
19	Customer	Rates	Rates	Increase	Increase
20	Classification				
21	5/8 Inch Meter - Residential	$626,494	$880,998	$ 254,504	40.62%
22	3/4 Inch Meter - Residential	468	832	364	77.78%
23	1 Inch Meter - Residential	4,441	8,207	3,766	84.81%
24	2 Inch Meter - Residential	194	531	338	174.26%
25	5/8 Inch Meter - Commercial	2,003	3,698	1,695	84.64%
26	1 Inch Meter - Commercial	2,647	4,473	1,826	68.97%
27	2 Inch Meter - Commercial	5,977	11,347	5,370	89.84%
28					
29	Revenues from Annualization	3,539	4,460	922	26.04%
30				-	0.00%
31				-	0.00%
32	Miscellaneous Revenues	8,436	8,436	-	0.00%
33				-	0.00%
34	Total of Water Revenues	$654,199	$922,984	$ 268,785	41.09%
35					
36					
37					
38	SUPPORTING SCHEDULES:				
39	B-1				
40	C-1				
41	C-3				
42	H-1				
43					
44					

Pine Water Company
Test Year Ended December 31, 2002
Summary of Results of Operations

Exhibit
Schedule A-2
Page 1
Witness: Bourassa

Line No.	Description	Prior Years Ended 12/31/00	Prior Years Ended 12/31/01	Test Year Actual 12/31/02	Test Year Adjusted 12/31/02
1	Gross Revenues	$ 601,693	$ 685,233	$ 670,447	$ 654,048
2					
3	Revenue Deductions and	623,020	863,026	907,584	786,760
4	Operating Expenses				
5					
6	Operating Income	$ (21,328)	$ (177,793)	$ (237,137)	$ (132,713)
7					
8	Other Income and	494,709	23	408	-
9	Deductions				
10					
11	Interest Expense	7,127	8,925	7,694	20,824
12					
13	Net Income	$ 466,254	$ (186,695)	$ (244,423)	$ (153,536)
14					
15	Earned Per Average				
16	Common Share	466.25	(186.69)	(244.42)	(153.54)
17					
18	Dividends Per				
19	Common Share	-	-	-	-
20					
21	Payout Ratio	-	-	-	-
22					
23	Return on Average				
24	Invested Capital	52.10%	-17.64%	-22.98%	-14.68%
25					
26	Return on Year End				
27	Capital	43.92%	-17.70%	-22.80%	-15.07%
28					
29	Return on Average				
30	Common Equity	932.61%	-101.04%	793.99%	-122.01%
31					
32	Return on Year End				
33	Common Equity	167.64%	-204.20%	159.76%	-312.91%
34					
35	Times Bond Interest Earned				
36	Before Income Taxes	66.42	(19.92)	(30.82)	(23.11)
37					
38	Times Total Interest and				
39	Preferred Dividends Earned				
40	After Income Taxes	66.39	(19.92)	(30.82)	(17.25)
41					
42					
43	SUPPORTING SCHEDULES				
44	C-1				
45	E-2				
46	F-1				

Pine Water Company
Test Year Ended December 31, 2002
Summary of Capital Structure

Exhibit
Schedule A-3
Page 1
Witness: Bourassa

Line No.	Description:	Prior Years Ended 12/31/00	12/31/01	Test Year 12/31/02	Projected Year 12/31/03
1					
2					
3	Long-Term Debt	93,080	75,166	55,353	233,353
4					
5	Total Debt	$ 93,080	$ 75,166	$ 55,353	$ 233,353
6					
7					
8	Preferred Stock	-	-	-	-
9					
10	Common Equity	278,121	91,427	(152,996)	202,603
11					
12					
13	Total Capital & Debt	$ 371,201	$ 166,594	$ (97,643)	$ 435,956
14					
15					
16	Capitalization Ratios:				
17					
18	Long-Term Debt	25.08%	45.12%	-56.69%	53.53%
19					
20	Total Debt	25.08%	45.12%	-56.69%	53.53%
21					
22					
23	Preferred Stock	-	-	-	-
24					
25	Common Equity	74.92%	54.88%	156.69%	46.47%
26					
27					
28	Total Capital	100.00%	100.00%	100.00%	100.00%
29					
30					
31	Weighted Cost of				
32	Senior Capital	2.51%	4.51%	-5.67%	5.35%
33					
34					
35					
36					
37					
38	SUPPORTING SCHEDULES:				
39	E-1				
40	D-1				

Pine Water Company
Test Year Ended December 31, 2002
Construction Expenditures
and Gross Utility Plant in Service

Exhibit
Schedule A-4
Page 1
Witness: Bourassa

Line No.		Construction Expenditures	Net Plant Placed in Service	Gross Utility Plant in Service
1				(a)
2	Prior Year Ended 12/31/1999	-		1,768,176
3				
4	Prior Year Ended 12/31/2000	20,701	20,702	1,788,878
5				
6	Prior Year Ended 12/31/2001	35,129	35,129	1,824,007
7				
8	Test Yearr Ended 12/31/2002	67,587	67,588	1,891,594
9				
10	Projected Year Ended 12/31/2003	75,435	75,435	1,967,029
11				
12	(a) Unadjusted			
13				
14				
15	SUPPORTING SCHEDULES:			
16	B-2			
17	E-5			
18	F-3			
19				
20				
21				
22				
23				
24				
25				
26				
27				

Pine Water Company
Test Year Ended December 31, 2002
Summary Statements of Cash Flows

Exhibit
Schedule A-5
Page 1
Witness: Bourassa

Line No.		Prior Year Ended 12/31/00	Prior Year Ended 12/31/01	Test Year Ended 12/31/02	Projected Year Present Rates 12/31/03	Projected Year Proposed Rates 12/31/03
5	Cash Flows from Operating Activities					
6	Net Income	$ 466,254	$ (186,695)	$ (244,424)	$ (153,551)	$ 53,500
7	Adjustments to reconcile net income to net cash					
8	provided by operating activities:					
9	Depreciation and Amortization	24,559	21,908	23,254	35,496	35,496
10	Deferred Income Taxes	-	-	-	-	-
11	Accumulated Deferred ITC	-	-	-	-	-
12	Changes in Certain Assests and Liabilities:				-	-
13	Accounts Receivable	(1,944)	(4,703)	1,663	-	-
14	Materials & Supplies	-	-	-	-	-
15	Prepaid Expenses	9,530	810	810	-	-
16	Misc Current Assets and Deferred Expense	(498,225)	-	-	-	-
17	Accounts Payable and Accrued Liabilities	(270,406)	220,511	290,044	37,515	37,515
18	Accrued Income Taxes	-	-	-	-	-
19	Net Cash Flow provided by Operating Activities	$ (270,232)	$ 51,831	$ 71,347	$ (80,540)	$ 126,511
20	Cash Flow From Investing Activities:					
21	Capital Expenditures	(20,701)	(35,129)	(67,587)	(75,435)	(75,435)
22	Plant Held for Future Use	-	-	-		
23	Non-Utility Property	-	-	-		
24	Net Cash Flows from Investing Activities	$ (20,701)	$ (35,129)	$ (67,587)	$ (75,435)	$ (75,435)
25	Cash Flow From Financing Activities					
26	(Decrease) Increase in Net Amounts due to Parent and					
27	Affiliates	-	-	-	(533,599)	(533,599)
28	Customer Deposits	625	4,702	946	-	-
29	Changes in Advances for Construction	28,364	(3,490)	15,108	-	-
30	Changes in Contributions for Construction	-	-	-	-	-
31	Proceeds from Long-Term Debt Borrowing	261,944	-	-	178,000	178,000
32	Repayments of Long-Term Debt	-	(17,914)	(19,814)	(51,076)	(51,076)
33	Dividends Paid	-	-	-	-	-
34	Deferred Financing Costs	-	-	-	-	-
35	Proceeds from Additional Paid-in-Capital				355,599	355,599
36	Net Cash Flows Provided by Financing Activities	$ 290,933	$ (16,702)	$ (3,760)	$ (51,076)	$ (51,076)
37	Increase(decrease) in Cash and Cash Equivalents	-	-	-	(207,051)	(0)
38	Cash and Cash Equivalents at Beginning of Year	-	-	-	-	-
39	Cash and Cash Equivalents at End of Year	$ -	$ -	$ -	$ (207,051)	$ (0)
40						
41						
42						
43	SUPPORTING SCHEDULES:					
44	E-3					
45	F-2					
46						

Pine Water Company
Test Year Ended December 31, 2002
Summary of Fair Value Rate Base

Exhibit
Schedule B-1
Page 1
Witness: Bourassa

Line No.		Original Cost Rate base
1		
2	Gross Utility Plant in Service	$ 1,967,029
3	Less: Accumulated Depreciation	1,228,209
4		
5	Net Utility Plant in Service	$ 738,820
6		
7	Less:	
8	Advances in Aid of	
9	Construction	52,072
10	Contributions in Aid of	
11	Construction - Net of amortization	463,392
12	Customer Meter Deposits	21,356
13	Deferred Income Taxes & Credits	-
14	Investment tax Credits	-
15	Plus:	
16	Unamortized Finance	
17	Charges	-
18	Deferred Tax Assets	369,000
19	Allowance for Working Capital	109,032
20	Citizens Acquisition Adjustment	-
21		
22	Total Rate Base	$ 680,032
23		
24		
25		
26	SUPPORTING SCHEDULES:	RECAP SCHEDULES:
27	B-2	A-1
28	B-3	
29	B-5	
30	E-1	
31		

Pine Water Company
Test Year Ended December 31, 2002
Original Cost Rate Base Proforma Adjustments

Exhibit
Schedule B-2
Page 1
Witness: Bourassa

Line No.		Actual at End of Test Year	Proforma Adjustments Label	Amount	Adjusted at end of Test Year
1	Gross Utility				
2	Plant in Service	$ 1,891,594	(1)	75,435	$ 1,967,029
3					
4	**Less:**				
5					
6	Accumulated				
7	Depreciation	1,228,209			1,228,209
8					
9	Net Utility Plant				
10	in Service	$ 663,385			$ 738,820
11					
12	**Less:**				
13	Advances in Aid of				
14	Construction	$ 52,072			$ 52,072
15	Contributions in Aid of				
16	Construction - Net	463,392			463,392
17					
18	Customer Meter Deposits	21,356			21,356
19	Deferred Income Taxes	-			-
20	Investment Tax Credits	-			-
21	**Plus:**				
22					
23	Deferred Tax Assets	369,000			369,000
24					
25	Working capital	109,032			109,032
26					
27					
28	Total	$ 604,597			$ 680,032
29					
30					
31	ADJUSTMENTS:				
32	(1) Plant to be completed by 12/31/2003				
33					
34					
35					
36					
37					
38					
39					
40	SUPPORTING SCHEDULES:				RECAP SCHEDULES:
41	E-1				B-1
42					

Pine Water Company
Test Year Ended December 31, 2002
Computation of Working Capital

Exhibit
Schedule B-5
Page 1
Witness: Bourassa

Line No.			
1	Cash Working Capital (1/8 of Allowance		
2	Operation and Maintenance Expense)	$	89,381
3	Pumping Power (1/24 of Pumping Power)		1,539
4	Material and Supplies Inventories		-
5	Prepayments		18,111
6			
7			
8	Total Working Capital Allowance	$	109,032
9			
10			
11	Working Capital Requested	$	109,032
12			
13			
14	SUPPORTING SCHEDULES:	RECAP SCHEDULES:	
15	E-1	B-1	
16			

Pine Water Company
Test Year Ended December 31, 2002
Income Statement

Exhibit
Schedule C-1
Page 1
Witness: Bourassa

Line No.		Test Year Book Results	Label	Adjustment	Test Year Adjusted Results	Proposed Rate Increase	Adjusted with Rate Increase
1	**Revenues**						
2	Metered Water Revenues	$ 662,011	(1)(2)(12)	(16,399)	$ 645,612	269,012	$ 914,623
3	Unmetered Water Revenues	-			-		-
4	Other Water Revenues	8,436			8,436		8,436
5		$ 670,447		$ (16,399)	$ 654,048	$ 269,012	$ 923,059
6	**Operating Expenses**						
7	Salaries and Wages	$ 125,296			$ 125,296		$ 125,296
8	Pension & Benefits	6,105			6,105		6,105
9	Purchased Water	103,532	(3)	(39,270)	64,262		64,262
10	Purchased Power	36,942			36,942		36,942
11	Chemicals	604			604		604
12	Materials & Supplies	59,423	(4)	(16,500)	42,923		42,923
13	Regulatory Water Testing	7,758			7,758		7,758
14	Contractual Services - Engineering	-			-		-
15	Contractual Services - Accounting	38,328			38,328		38,328
16	Contractual Services - Legal	104,161	(10)	(37,730)	66,430		66,430
17	Contractual Services - Other	19,368			19,368		19,368
18	Overhead Allocation - G&A	71,092			71,092		71,092
19	Rental of Equipment	-			-		-
20	Transportation Expenses	176,144		-	176,144		176,144
21	Worker's Comp	2,271			2,271		2,271
22	Insurances Medical/Dental	12,663			12,663		12,663
23	Telephone	2,631			2,631		2,631
24	Dues & Subscriptions	299			299		299
25	Bad Debt Expense	2,153			2,153		2,153
26	Misc Expenses	202			202		202
27	Office Supplies	-	(11)	4,080	4,080		4,080
28	Licenses & Permits	1,000			1,000		1,000
29	Repairs & Maintenance - Bldg	-			-		-
30	R&M Vehicles	-			-		-
31	Sales Tax Expense	41,363	(2)	(41,742)	(380)		(380)
32	Utiltiy Reg. Assess. Fee	272			272		272
33	CAWCD Costs	21,501			21,501		21,501
34	Rate Case Expense	-	(7)	50,000	50,000		50,000
34	Depreciation Expense	23,254	(5)	12,243	35,496		35,496
35	Other Taxes and Licenses	45			45		45
36	Property Taxes	51,177	(6)	(5,938)	45,239		45,239
37	Income Tax	-			(45,951)		16,010
38					-		-
39	**Total Operating Expenses**	$ 907,584		$ (74,858)	$ 786,774	$ -	$ 848,735
40	**Operating Income**	$ (237,137)		$ 58,459	$ (132,727)	$ 269,012	$ 74,324
41	**Other Income (Expense)**						
42	Interest Income	-			-		-
43	Other income	408	(8)	(408)	-		-
44	Income Tax Provision	-			-		
45	Interest Expense	(7,694)	(9)	(13,130)	(20,824)		(20,824)
46	Other Expense	-			-		-
47	Gain/Loss Sale of Fixed Assets	-			-		-
48	**Total Other Income (Expense)**	$ (7,287)		$ (13,537)	$ (20,824)	$ -	$ (20,824)
49	**Net Profit (Loss)**	$ (244,423)		$ 44,922	$ (153,551)	$ 269,012	$ 53,500
50							
51	SUPPORTING SCHEDULES:					RECAP SCHEDULES:	
52	C-2					A-1	
53	E-2						
54							

Pine Water Company
Test Year Ended December 31, 2002
Adjustments to Revenues and Expenses

Exhibit
Schedule C-2
Page 1
Witness: Bourassa

Line No.		Adjustments to Revenues and Expenses						
		1	2	3	4	5	6	Subtotal
		Remove Sales Tax Recorded in Revenues	Add Back Billing Adjustments	Remove Water Hauling and Water Hauling Costs	Reclassify Mantenance Expenses to Plant	Depreciation Expense	Property Taxes	
3	Revenues	(41,742)	21,804					(19,938)
5	Expenses	(41,742)		(39,270)	(16,500)	12,243	(5,938)	(91,208)
7	Operating Income	-	21,804	39,270	16,500	(12,243)	5,938	71,270
10	Interest Expense							-
12	Other Income / Expense							
16	Net Income	-	21,804	39,270	16,500	(12,243)	5,938	71,270

Line No.		Adjustments to Revenues and Expenses						
		7	8	9	10	11	12	Subtotal
		Rate Case Expense	Remove Other Income/Expense	Interest Expense	Legal Costs	Customer Education Program	Revenue Annualization	
23	Revenues						3,539	(16,399)
25	Expenses	50,000			(37,730)	4,080		(74,858)
27	Operating Income	(50,000)	-	-	37,730	(4,080)	3,539	58,459
30	Interest Expense			(13,130)				(13,130)
32	Other Income / Expense		408					408
36	Net Income	(50,000)	408	(13,130)	37,730	(4,080)	3,539	45,737

Pine Water Company
Test Year Ended December 31, 2002
Adjustments to Revenues and Expenses
Adjustment Number 1

Exhibit
Schedule C-2
Page 2
Witness: Bourassa

Line No.				
1	Remove Sales Taxes Recorded in Revenues			
2				
3				**Amount**
4	Sales Taxes Recorded in Revenues During Test Year			
5		Month		
6		January	$ 3,022	
7		February	3,222	
8		March	3,106	
9		April	3,361	
10		May	3,829	
11		June	4,231	
12		July	2,874	
13		August	3,656	
14		September	3,812	
15		October	3,712	
16		November	3,474	
17		December	3,442	
18	Total Adjustments			$ 41,742
19				
20	Adjustment to Revenues and/or Expenses			$ (41,742)
21				
22				
23				
24				

Pine Water Company
Test Year Ended December 31, 2002
Adjustments to Revenues and Expenses
Adjustment 2

Exhibit
Schedule C-2
Page 3
Witness: Bourassa

Line No.			
1	Add Back Billing Adjustments in 2002		
2			
3	Billing Adjustment Recorded in Test Year		
4	Month		**Amount**
5	January	3,829	
6	January	1	
7	February	23	
8	March	322	
9	March	220	
10	April	819	
11	May	17	
12	June	2,116	
13	June	85	
14	July	14,122	
15	August	84	
16	Sept	100	
17	October	32	
18	Nov.	0	
19	December	35	
20			
21			
22	Total Adjustments		$ 21,804
23			
24	Adjustment to Revenues and/or Expenses		21,804
25			
26			
27			
28			

Pine Water Company
Test Year Ended December 31, 2002
Adjustments to Revenues and Expenses
Adjustment Number 3

Exhibit
Schedule C-2
Page 4
Witness: Bourassa

Line No.			
1	Remove Hauling and Water Sharing Agreements Included in Adjuster Mechanism		
2			
3			
4	Water Hauling Costs for 2002	$ 39,270	
5			
6			
7			
8			$ 39,270
9			
10			
11			
12	Adjustment to Revenues and/or Expenses		$ (39,270)
13			
14			
15			
16			

Pine Water Company
Test Year Ended December 31, 2002
Adjustments to Revenues and Expenses
Adjustment Number 4

Exhibit
Schedule C-2
Page 5
Witness: Bourassa

Line No.		
1	Maintenance and Repair Reclassified to Plant	
2		
3		**Amount**
4	Propjected Repairs and Maintenance Expense	42,923
5	Test Yaar Repairs and Maintenance	59,423
6		
7		
8		
9	Total	$ (16,500)
10		
11		
12		
13	Adjustment to Revenues and/or Expenses	$ (16,500)
14		
15		
16		
17		

Pine Water Company
Test Year Ended December 31, 2002
Adjustments to Revenues and Expenses
Adjustment Number 5

Exhibit
Schedule C-2
Page 6
Witness: Bourassa

Depreciation Expense

Line No.	Account No.	Description	Original Cost	Rate	Depreciation Expense
6	301	Organization	$ -	0.00%	$ -
7	302	Franchises	-	0.00%	-
8	303	Land and Land Rights	16,930	0.00%	-
9	304	Structures and Improvements	160,067	3.33%	5,330
10	305	Collecting and Impounding Rese	-	2.50%	-
11	306	Lake, River and Other Intakes	-	2.50%	-
12	307	Wells and Springs	65,994	3.33%	2,198
13	308	Infiltration Galleries and Tun	-	6.67%	-
14	309	Supply Mains	479	2.00%	10
15	310	Power Generation Equipment	-	5.00%	-
16	311	Pumping Equipment	131,293	12.50%	16,412
17	320	Water Treatment Equipment	5,320	3.33%	177
18	330	Distribution Reservoirs and St	247,073	2.22%	5,485
19	331	Transmission and Distribution	990,291	2.00%	19,806
20	333	Services	80,461	3.33%	2,679
21	334	Meters and Meter Installations	193,687	8.33%	16,134
22	335	Hydrants	-	2.00%	-
23	336	Backflow Prevention Devices	-	6.67%	-
24	339	Other Plant and Miscellaneous	-	6.67%	-
25	340	Office Furniture and Equipment	-	6.67%	-
26	341	Transportation Equipment	-	20.00%	-
27	342	Stores Equipment	-	4.00%	-
28	343	Tools, Shop and Garage Equipme	-	5.00%	-
29	344	Laboratory Equipment	-	10.00%	-
30	345	Power Operated Equipment	-	5.00%	-
31	346	Communication Equipment	-	10.00%	-
32	347	Miscellaneous Equipment	-	10.00%	-
33	348	Other Tangible Plant	-	0.00%	-
40		TOTALS	$ 1,891,594		$ 68,230
44		Proforma Plant (to be completed by 12/31/2002)	$ 75,435	3.6396%	2,746
45		Maintenance and Repairs Reclassified to Plant	$ (16,500)	3.6396%	(601)
48		Less: Amortization of Contributions	$ 958,323	3.6396%	(34,879)
50		Total Depreciation Expense			$ 35,496
52		Test Year Depreciation Expense			23,254
54		Increase (decrease) in Depreciation Expense			12,243
56		Adjustment to Revenues and/or Expenses			$ 12,243

Pine Water Company
Test Year Ended December 31, 2002
Adjustments to Revenues and Expenses
Adjustment Number 6

Exhibit
Schedule C-2
Page 7
Witness: Bourassa

Line No.		
1	Property Taxes	
2		
3	Unadjusted Revenues in year ended 12/31/02 (excluding sales tax)	$ 628,705
4	Adjusted Revenues in year ended 12/31/02	654,048
5	Proposed Revenues	923,059
6	Average of three year's of revenue	$735,270
7	Average of three year's of revenue, times 2	$1,470,541
8	Add:	
9	Construction Work in Progess at 10%	
10	Deduct:	
11	Book Value of Transportation Equipment	-
12		
13	Total Book Value of Transportation Equipment	$ -
14		
15	Full Cash Value	$ 1,470,541
16	Assessment Ratio	25%
17	Assessed Value	367,635
18	Property Tax Rate	12.31%
19		
20	Property Tax	45,239
21	Tax on Parcels	-
22		
23	Total Property Tax at Proposed Rates	$ 45,239
24	Property Taxes in the test year	51,177
25	Change in Property Taxes	$ (5,938)
26		
27		
28	Adjustment to Revenues and/or Expenses	$ (5,938)
29		
30		

Pine Water Company
Test Year Ended December 31, 2002
Adjustments to Revenues and Expenses
Adjustment Number 7

Exhibit
Schedule C-2
Page 8
Witness: Bourassa

Line No.			
1	Rate Case Expense		
2			
3	Rate Case expense	$	150,000
4	Amortization Period (Years)		3
5	Annual Amortization Expense	$	50,000
6			
7			
8			
9	Adjustment to Revenues and/or Expense		50,000
10			
11			

Pine Water Company
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 8

Exhibit
Schedule C-2
Page 9
Witness: Bourassa

Line No.			
1	Remove Other Income/Expense to Eliminate Effects on Rates		
2			
3	Test Year Other Income	$	408
4			
5			
6	Increase (decrease) in Revenues/ Expenses	$	(408)
7			
8	Adjustment to Revenue and/or Expense	$	(408)
9			
10			
11			

Pine Water Company
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 9

Exhibit
Schedule C-2
Page 10
Witness: Bourassa

Line No.		
1	Projected 2003 Interest Expense	
2		
3	Projected 2003 Interest Expense	$ 20,824
4		
5	Test year Interest Expense	7,694
6		
7	Increase (decrease) in Revenues/ Expenses	$ 13,130
8		
9		
10		
11		
12	Adjustment to Revenue and/or Expense	$ (13,130)
13		
14	SUPPORTING SCHEDULES:	
15	C-2, page 10a	
16	C-2, page 10b	
17		
18		

Pine Water Company
Amortization Schedule

Exhibit
Schedule C2
Page 10a
Witness: Bourassa

Line No.							
1		Principal	$ 104,000.00				
2		No. of Months	60				
3		Annual Interest Rate	10.00%				
4		Monthly Payment	$ 2,209.69				
5							
6	Date	Pay No.	Principal	Interest	Payment	Balance	
7	May-00	1	$ 1,343.03	$ 866.67	$2,209.69	$ 104,000.00	
8	Jun-00	2	1,354.22	855.47	2,209.69	102,656.97	
9	Jul-00	3	1,365.50	844.19	2,209.69	101,302.76	
10	Aug-00	4	1,376.88	832.81	2,209.69	99,937.25	
11	Sep-00	5	1,388.36	821.34	2,209.69	98,560.37	
12	Oct-00	6	1,399.93	809.77	2,209.69	97,172.01	
13	Nov-00	7	1,411.59	798.10	2,209.69	95,772.09	
14	Dec-00	8	1,423.36	786.34	2,209.69	94,360.50	
15	Jan-01	9	1,435.22	774.48	2,209.69	92,937.14	
16	Feb-01	10	1,447.18	762.52	2,209.69	91,501.93	
17	Mar-01	11	1,459.24	750.46	2,209.69	90,054.75	
18	Apr-01	12	1,471.40	738.30	2,209.69	88,595.51	
19	May-01	13	1,483.66	726.03	2,209.69	87,124.12	
20	Jun-01	14	1,496.02	713.67	2,209.69	85,640.46	
21	Jul-01	15	1,508.49	701.20	2,209.69	84,144.44	
22	Aug-01	16	1,521.06	688.63	2,209.69	82,635.95	
23	Sep-01	17	1,533.74	675.96	2,209.69	81,114.89	
24	Oct-01	18	1,546.52	663.18	2,209.69	79,581.15	
25	Nov-01	19	1,559.40	650.29	2,209.69	78,034.63	
26	Dec-01	20	1,572.40	637.29	2,209.69	76,475.23	
27	Jan-02	21	1,585.50	624.19	2,209.69	74,902.83	
28	Feb-02	22	1,598.71	610.98	2,209.69	73,317.33	
29	Mar-02	23	1,612.04	597.66	2,209.69	71,718.61	
30	Apr-02	24	1,625.47	584.22	2,209.69	70,106.58	
31	May-02	25	1,639.02	570.68	2,209.69	68,481.11	
32	Jun-02	26	1,652.68	557.02	2,209.69	66,842.09	
33	Jul-02	27	1,666.45	543.25	2,209.69	65,189.41	
34	Aug-02	28	1,680.33	529.36	2,209.69	63,522.97	
35	Sep-02	29	1,694.34	515.36	2,209.69	61,842.63	
36	Oct-02	30	1,708.46	501.24	2,209.69	60,148.29	
37	Nov-02	31	1,722.69	487.00	2,209.69	58,439.84	
38	Dec-02	32	1,737.05	472.64	2,209.69	56,717.14	
39	Jan-03	33	1,751.53	458.17	2,209.69	54,980.09	2003
40	Feb-03	34	1,766.12	443.57	2,209.69	53,228.57	Current Portion 22,192.32
41	Mar-03	35	1,780.84	428.85	2,209.69	51,462.45	Interest Expense 4,323.99
42	Apr-03	36	1,795.68	414.01	2,209.69	49,681.61	Total Debt Service 26,516.31
43	May-03	37	1,810.64	399.05	2,209.69	47,885.93	

Pine Water Company
Amortization Schedule
Proposed Long-Term Debt From Ineter-Company Payable

Exhibit
Schedule C2
Page 10b
Witness: Bourassa

Line No.			
1	Inter-Company Payable Balance at 12/31/2002	$	533,599
2	Amount Converted to Long-Term Debt		178,000
3	Amount Converted to Equity		355,599
4			
5	Principal	$	178,000
6	No. of Months		60
7	Annual Interest Rate		10.00%
8	Monthly Payment	$	3,781.97

Line No.	Pay No.	Principal	Interest	Payment	Balance		
10							
11	1	$ 2,298.64	$ 1,483.33	$3,781.97	$ 178,000.00	Year 1	
12	2	2,317.80	1,464.18	3,781.97	175,701.36	Current Portion	28,883.73
13	3	2,337.11	1,444.86	3,781.97	173,383.56	Interest Expense	16,499.96
14	4	2,356.59	1,425.39	3,781.97	171,046.45	Total Debt Service	45,383.69
15	5	2,376.23	1,405.75	3,781.97	168,689.87		
16	6	2,396.03	1,385.95	3,781.97	166,313.64		
17	7	2,415.99	1,365.98	3,781.97	163,917.61		
18	8	2,436.13	1,345.85	3,781.97	161,501.62		
19	9	2,456.43	1,325.55	3,781.97	159,065.49		
20	10	2,476.90	1,305.08	3,781.97	156,609.06		
21	11	2,497.54	1,284.43	3,781.97	154,132.17		
22	12	2,518.35	1,263.62	3,781.97	151,634.63		
23	13	2,539.34	1,242.64	3,781.97	149,116.27	Year 2	
24	14	2,560.50	1,221.47	3,781.97	146,576.94	Current Portion	31,908.23
25	15	2,581.84	1,200.14	3,781.97	144,016.44	Interest Expense	13,475.46
26	16	2,603.35	1,178.62	3,781.97	141,434.60	Total Debt Service	45,383.69
27	17	2,625.05	1,156.93	3,781.97	138,831.25		
28	18	2,646.92	1,135.05	3,781.97	136,206.20		
29	19	2,668.98	1,112.99	3,781.97	133,559.28		
30	20	2,691.22	1,090.75	3,781.97	130,890.30		
31	21	2,713.65	1,068.33	3,781.97	128,199.08		
32	22	2,736.26	1,045.71	3,781.97	125,485.43		
33	23	2,759.06	1,022.91	3,781.97	122,749.17		
34	24	2,782.06	999.92	3,781.97	119,990.10	Year 3	
35	25	2,805.24	976.73	3,781.97	117,208.05	Current Portion	35,249.44
36	26	2,828.62	953.36	3,781.97	114,402.81	Interest Expense	10,134.25
37	27	2,852.19	929.78	3,781.97	111,574.19	Total Debt Service	45,383.69
38	28	2,875.96	906.02	3,781.97	108,722.00		
39	29	2,899.92	882.05	3,781.97	105,846.04		
40	30	2,924.09	857.88	3,781.97	102,946.12		
41	31	2,948.46	833.52	3,781.97	100,022.03		
42	32	2,973.03	808.95	3,781.97	97,073.57		
43	33	2,997.80	784.17	3,781.97	94,100.54		
44	34	3,022.78	759.19	3,781.97	91,102.74		
45	35	3,047.97	734.00	3,781.97	88,079.96		
46	36	3,073.37	708.60	3,781.97	85,031.98	Year 4	
47	37	3,098.99	682.99	3,781.97	81,958.61	Current Portion	39,265.02
48	38	3,124.81	657.16	3,781.97	78,859.62	Interest Expense	6,118.67
49	39	3,150.85	631.12	3,781.97	75,734.81	Total Debt Service	45,383.69
50	40	3,177.11	604.87	3,781.97	72,583.96		
51	41	3,203.58	578.39	3,781.97	69,406.85		
52	42	3,230.28	551.69	3,781.97	66,203.27		
53	43	3,257.20	524.77	3,781.97	62,972.99		
54	44	3,284.34	497.63	3,781.97	59,715.79		
55	45	3,311.71	470.26	3,781.97	56,431.45		
56	46	3,339.31	442.66	3,781.97	53,119.74		
57	47	3,367.14	414.84	3,781.97	49,780.43		
58	48	3,395.20	386.78	3,781.97	46,413.29	Year 5	
59	49	3,423.49	358.48	3,781.97	43,018.09	Current Portion	39,594.60
60	50	3,452.02	329.96	3,781.97	39,594.60	Interest Expense	2,007.11
61	51	3,480.79	301.19	3,781.97	36,142.59	Total Debt Service	41,601.71
62	52	3,509.79	272.18	3,781.97	32,661.80		
63	53	3,539.04	242.93	3,781.97	29,152.01		
64	54	3,568.53	213.44	3,781.97	25,612.97		
65	55	3,598.27	183.70	3,781.97	22,044.43		
66	56	3,628.26	153.72	3,781.97	18,446.16		
67	57	3,658.49	123.48	3,781.97	14,817.91		
68	58	3,688.98	93.00	3,781.97	11,159.42		
69	59	3,719.72	62.25	3,781.97	7,470.44		
70	60	3,750.72	31.26	3,781.97	3,750.72		

Pine Water Company
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 10

Exhibit
Schedule C-2
Page 11
Witness: Bourassa

Line No.			
1	Normalize Legal Costs		
2			
3	2000 Legal Costs	$	7,448
4	2001 Legal Costs		87,682
5	2002 Legal Costs		104,161
6	Total of 3 years	$	199,290
7			
8	Average 3 years	$	66,430
9			
10	Test Year Legal Expense		104,161
11			
12	Increase (decrease) in Legal Costs	$	(37,730)
13			
14			
15	Adjustment to Revenue and/or Expense	$	(37,730)
16			
17			

Pine Water Company
Test Year Ended December 31, 2001
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 11

Exhibit
Schedule C-2
Page 12
Witness: Bourassa

Line No.		
1	Projected Costs of Customer Education Program	
2		
3		
4	Printing	$640
5	Handling and preparation	$480
6	Postage	$2,960
7		
8	Total Customer Education Program Costs	$ 4,080
9		
10		
11	Adjustment to Revenue and/or Expense	$ 4,080
12		
13		
14		
15		
16		
17		
18		

Pine Water Company
Test Year Ended December 31, 2002
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 12

Exhibit
Schedule C-2
Page 13
Witness: Bourassa

Line No.		
1	Revenue Annualization	
2		
3		
4	Revenes from annualization of customers	$ 3,539
5		
6		
7		
8	Total	$ 3,539
9		
10		
11	Adjustment to Revenue and/or Expense	$ 3,539
12		
13		
14		
15	Supporting Schedule C-2, page 13-1	
16		
17		
18		

Pine Water Company
Revenue Annualization / 5/8 Inch Commercial Customers to Year End Number of Customers
Test Year Ended December 31, 2002

Exhibit
Schedule C-2
Page 13-1
Witness: Bourassa

Line No.		Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02
1	Year End Number of Customers	1,514	1,514	1,514	1,514	1,514	1,514	1,514
2	Actual Customers	1,478	1,479	1,482	1,491	1,497	1,508	1,515
3	Increase in Number of Customers/Bills	36	35	32	23	17	6	(1)
4	Average Revenue / Present Rates	$ 24.62	$ 24.67	$ 24.25	$ 25.44	$ 27.81	$ 29.55	$ 27.13
5	Revenue Annualization / Present Rates	$ 886	$ 863	$ 776	$ 585	$ 473	$ 177	$ (27)
6								
7	Increase in Number of Customers	36	35	32	23	17	6	(1)
8	Average Revenue / Proposed Rates	$ 29.91	$ 29.98	$ 29.45	$ 31.12	$ 41.38	$ 46.56	$ 39.34
9	Revenue Annualization / Proposed Rates	$ 1,077	$ 1,049	$ 942	$ 716	$ 703	$ 279	$ (39)
10	Additional Gallons to be Produced	1,850	1,864	1,739	2,078	2,771	3,271	2,551
11								

12		Month of Aug-02	Month of Sep-02	Month of Oct-02	Month of Nov-02	Month of Dec-02	Total Year
13							
14							
15	Year End Number of Customers	1,514	1,514	1,514	1,514	1,514	
16	Actual Customers	1,517	1,515	1,517	1,514	1,523	
17	Increase in Number of Customers/Bills	(3)	-	(9)	5	-	141
18	Average Revenue / Present Rates	$ 26.71	$ 27.47	$ 26.76	$ 25.22	$ 25.22	
19	Revenue Annualization / Present Rates	$ (80)	$ -	$ (241)	$ 126	$ -	$ 3,539
20							
21	Increase in Number of Customers	(3)	-	(9)	5	-	
22	Average Revenue / Proposed Rates	$ 38.10	$ 40.37	$ 34.03	$ 30.67	$ 30.67	
23	Revenue Annualization / Proposed Rates	$ (80)	$ -	$ (241)	$ 126	$ -	$ 4,460
24	Additional Gallons to be Produced	2,428	2,654	2,434	2,151	1,992	27,782

Pine Water Company
Test Year Ended December 31, 2002
Computation of Gross Revenue Conversion Factor

Exhibit
Schedule C-3
Page 1
Witness: Bourassa

Line No.	Description	Percentage of Incremental Gross Revenues
1	Federal Income Taxes	16.06%
2		
3	State Income Taxes	6.97%
4		
5	Other Taxes and Expenses	0.00%
6		
7		
8	Total Tax Percentage	23.03%
9		
10	Operating Income % = 100% - Tax Percentage	76.97%
11		
12		
13		
14		
15	1 = Gross Revenue Conversion Factor	
16	Operating Income %	1.2993
17		
18	SUPPORTING SCHEDULES:	RECAP SCHEDULES:
19		A-1
20		

Pine Water Company
Test Year Ended December 31, 2002
Summary of Cost of Capital

Exhibit
Schedule D-1
Page 1
Witness: Bourassa

Line No.	Item of Capital	Proposed End of Test Year Dollar Amount	Percent of Total	Cost Rate	Weighted Cost	End of Projected Year Dollar Amount	Percent of Total	Cost Rate	Weighted Cost
1	Long-Term Debt (a)	233,353	53.53%	10.00%	5.35%	182,087	41.55%	10.00%	4.16%
2									
3	Stockholder's Equity (a)	202,603	46.47%	12.00%	5.58%	256,103	58.45%	12.00%	7.01%
4									
5	Totals	435,956	100.00%		10.93%	438,191	100.00%		11.17%
6									

7 (a) Adjusted for proposed conversion of inter-company payable to debt and equity.

8

9 SUPPORTING SCHEDULES:
10 D-1, page 2
11 D-2
12 D-3
13 D-4
14 E-1

Pine Water Company
Test Year Ended December 31, 2002
Summary of Cost of Capital

Exhibit
Schedule D-1
Page 2
Witness: Bourassa

Line No.		Actual End of Test Year Dollar Amount	Label	Adjustment	Adjusted End of Test Year Dollar Amount
1					
2	Stockholder's Equity	(152,996)	(a)	355,599	202,603
3					
4	Totals	(152,996)			202,603
5					
6					
7	(a) Propose converting $355,599 of $533,599 inter-company payable to equity.				
8					
9	SUPPORTING SCHEDULES:				
10	E-1				
11					
12					
13					
14					
15					
16					
17					
18					
19					
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21					
22					
23					
24					
25					
26					
27					
28					
29					

Pine Water Company
Test Year Ended December 31, 2002
Cost of Long Term Debt

Exhibit
Schedule D-2
Page 1
Witness: Bourassa

Line No.	Description of Debt	Adjusted End of Test Year Amount Outstanding	Percent	Interest Rate	Composite Cost	End of Projected Year Amount Outstanding	Percent	Interest Rate	Composite Cost
1									
2	Long-Term Debt	55,353	23.72%	10.00%	2.37%	32,971	14.13%	10.00%	1.41%
3	Long-Term Debt (a)	178,000	76.28%	10.00%	7.63%	149,116	63.90%	8.00%	5.11%
4									
5									
6									
7									
8									
9									
10	Totals	233,353	100.00%		10.00%	182,087	78.03%		6.53%
11									
12	(a) Propose converting $178,000 of the $533,599 inter-company payable to long-term debt.								
13									
14									
15	Supporting Schdules:								
16	E1								
17									
18									

Pine Water Company
Test Year Ended December 31, 2002
Cost of Preferred Stock

Exhibit
Schedule D-3
Page 1
Witness: Bourassa

Line No.	Description of Issue	End of Test Year Shares Outstanding	Amount	Dividend Requirement	End of Projected Year Shares Outstanding	Amount	Dividend Requirement
1							
2							
3	NOT APPLICABLE, NO PREFERRED STOCK ISSUED OR OUTSTANDING						
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17	SUPPORTING SCHEDULES:				RECAP SCHEDULES:		
18	(a) E-1				(a) D-1		
19							
20							

Pine Water Company, Inc.
Test Year Ended December 31, 2002
SUMMARY OF RETURN ON COMMON EQUITY

Exhibit
SCHEDULE D-4
PAGE 1
Witness: Bourassa

LINE NO.			
1	Equity Return Computations Ranges	From:	To:
2			
3		10.28%	11.00%
4			
5	Average of Above		10.64%
6			
7	Requested Risk Primium to Compensate for Business Risk		1.36%
8			
9			
10	Requested Equity Return (Average of Above)		
11	to Compensate for Business and Financial Risk		12.00%
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Actual and Estimated Returns on Equity

Exhibit
Schedule D-4.1
Page 1
Witness: Bourassa

Line No.		Equity Return Actual and Projected for: 2003	2005-07
1			
2			
3			
4			
5		2003	2005-07
6	Comparable Earnings		
7	Composite Statistics Water Utility		
8	Industry: (a)	10.50%	11.50%
9			
10	Authorized Returns on CA Turner		
11	Water Stocks		10.50%
12			
13	Earned Returns on CA Turner Water		
14	Stocks	11.07%	
15			
16			
17	Discounted Cash Flow Method	9.27%	
18	(Growth Rates (b))		
19			
20			
21	Average	10.28%	11.00%
22			
23			
24	(a) Data From Value Line, January 31, 2003		
25	(b) Growth Rates from Value Line January 31, 2003, and		
26	computed growth rates.		
27			
28			
29			
30			

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Returns on Equity of Nationally Traded Water
Utilities as Reported in C.A. Turner Utility Reports
April 2003

Exhibit
Schedule D-4.2
Page 1
Witness: Bouras

Line No.		Authorized Rate of Return	Current Rate of Return
1	American States Water Co.	10.00%	9.60%
2	Artesian Resources Corp.	10.50%	9.60%
3	California	10.48%	9.60%
4	Connecticut Water Service	12.70%	11.60%
5	Middlesex Water Co.	10.25%	9.80%
6	Pennichuck Corporation	10.33%	8.40%
7	Philadelphia Suburban	10.32%	13.90%
8	SJW Corp.	9.95%	9.40%
9	Southwest Water	10.00%	12.10%
10	York Water		16.70%
11	Simple Averages	10.50%	11.07%
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
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31			

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Value Line Cover Page

Exhibit
Schedule D-4.3
Page 1
Witness: Bourassa

Line No.	
1	Cover Page for Value Line, Dated January 31. 2002
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

The high costs of maintaining and upgrading the country's water and wastewater distribution systems have led to widespread consolidation in the Water Utility Industry.

The water utility stocks in this review are not timely for year-ahead investment. Conservative investors may, however, find an appealing choice here, based upon above-average Safety ranks and healthy dividend payouts.

The Need For Consolidation

Long-term trends in the Water Utility Industry indicate that infrastructure costs will continue to escalate. Water Utilities must maintain and upgrade existing facilities in order to remain in compliance with increasingly strict rules mandated by the Environmental Protection Agency (EPA) and other local regulators. Many of the water/wastewater systems that are presently in use were originally built about 100 years ago. The EPA and other industry sources indicate that hundreds of billions of dollars over the next 20 years will be needed to repair the nation's entire water system. The Water Infrastructure Network believes that there will be a $13 billion annual shortfall for wastewater infrastructure over that period, and long-term help from the federal government is needed to solve the problem. Also, transportation costs will continue to rise, as nearby sources of water are used up and farther-away, more-expensive sources of water are utilized. Water is difficult and expensive to move, because it is heavy and cannot be compressed. Increased federal spending will cover some of the industry's long-term costs, but water companies will probably foot most of the bill.

The costs of staying in compliance with numerous laws are particularly burdensome for smaller utilities, because they have a smaller base of customers over which they can spread costs. Small and mid-sized water companies usually welcome takeover offers from large-scale suitors and the significant capital resources they bring. The larger utilities benefit from economies of scale, which enables them to reduce costs. They also gain enhanced geographic diversity from acquisitions, which reduces their susceptibility to weather fluctuations that may cause undesirable volatility in earnings. The heavy regulatory oversight that the industry faces means that some local regulators are bound to be more cooperative with utilities than officials from a different locale. A multistate territory helps to limit a company's exposure to especially onerous regulatory atmospheres.

INDUSTRY TIMELINESS: 79 (of 98)

In the past few years, large foreign utilities have swallowed up domestic water companies. Germany-based RWE AG recently completed its acquisition of American Water Works, formerly this country's largest investor-owned water utility. The buying spree significantly reduced the number of independent water utilities in the U.S., making *Philadelphia Suburban* the largest publicly traded one.

Regulatory Challenges

This will probably be an especially tough year for water utilities, since many will have to operate under a cloud of government deficits. Lawmakers will become more unlikely to commit scarce public funds towards major infrastructure projects. For example, the U.S. Senate recently rejected an effort to add $5 billion for water and wastewater plants to a $390 billion spending bill, citing President Bush's insistence on limiting federal spending growth. The added difficulty in securing public funding is especially hard at the moment because the industry is pouring out money in an effort to improve its security and protect the nation's water-distribution system from potential attacks.

Meeting Governmental Regulations

The Safe Drinking Water Act (SDWA) of 1974 (amended in 1996) authorizes the EPA to work with state and local governments to periodically test for impurities in drinking water. The EPA regulates what levels of contaminants are acceptable per a specified amount of water. These standards have been developed taking into account the health effects of chemicals, measurement capabilities, and technical feasibility. Water utilities spend a large portion of their annual capital budgets on infrastructure improvements in order to stay in compliance with the SDWA, the Clean Water Act and numerous state and local laws.

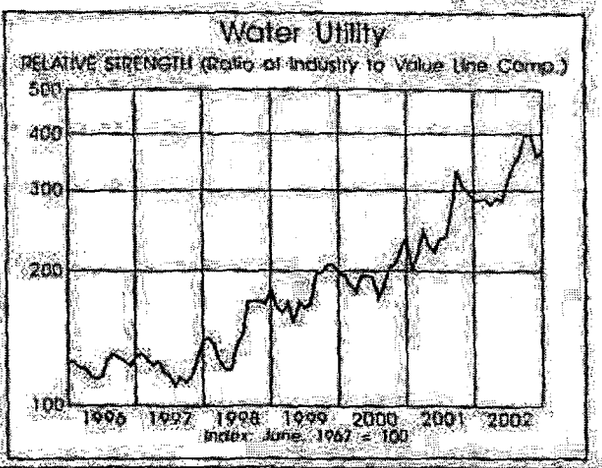
Investment Advice

None of the stocks in the industry are ranked to outperform the year-ahead market. Nonetheless, *Philadelphia Suburban* and *California Water* have above-average Safety ranks. Although they offer limited total-return potential over the coming 3 to 5 years, income-oriented investors might find one of these choices appealing, based upon a favorable risk profile.

Joseph Espaillat

Composite Statistics: Water Utility Industry

1998	1999	2000	2001	2002	2003		05-07
485.3	637.7	704.3	781.8	795	850	Revenues ($mill)	1060
61.8	72.4	83.9	95.6	96.5	115	Net Profit ($mill)	170
39.4%	40.0%	41.2%	40.8%	40.5%	40.5%	Income Tax Rate	40.5%
--	--	--	--	Nil	-5%	AFUDC % to Net Profit	-5%
48.0%	51.1%	50.3%	52.4%	54.0%	50.5%	Long-Term Debt Ratio	50.0%
51.2%	48.3%	49.3%	47.2%	45.5%	49.5%	Common Equity Ratio	50.0%
1062.2	1444.7	1661.0	1840.7	1980	2135	Total Capital ($mill)	2715
1502.4	2100.3	2342.5	2532.3	2715	2940	Net Plant ($mill)	3565
7.5%	7.4%	7.0%	6.8%	6.5%	7.0%	Return on Total Cap'l	7.0%
11.0%	11.5%	10.7%	10.6%	10.0%	10.5%	Return on Shr. Equity	11.5%
11.1%	11.5%	10.8%	10.7%	10.0%	10.5%	Return on Com Equity	11.5%
5.7%	5.8%	5.6%	5.3%	4.5%	5.5%	Retained to Com Eq	5.5%
70%	66%	67%	69%	74%	67%	All Div'ds to Net Prof.	53%
19.5	19.5	18.6	22.6	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	17.5
1.01	1.11	1.21	1.16			Relative P/E Ratio	.90
3.6%	3.5%	3.6%	3.1%			Avg Ann'l Div'd Yield	3.0%



AMER. STATES WATER NYSE-AWR

RECENT PRICE 24.10 | P/E RATIO 20.3 (Trailing: 15.6 Median: 14.8) | RELATIVE P/E RATIO 1.30 | DIV'D YLD 3.7% | VALUE LINE 1421

TIMELINESS 4 Lowered 12/27/02
SAFETY 3 New 2/4/00
TECHNICAL 2 Raised 1/17/03
BETA .65 (1.00 = Market)

2005-07 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	30	(+25%)	9%
Low	19	(-20%)	-7%

Insider Decisions

	M	A	M	J	J	A	S	O	N
to Buy	1	0	0	0	1	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	1	0	0	0	0	0	0

Institutional Decisions

	1Q2002	2Q2002	3Q2002
to Buy	40	39	39
to Sell	25	44	39
Hld's(000)	5401	5529	5713

LEGENDS
— 1.20 x Dividends p sh divided by Interest Rate
Relative Price Strength
2-for-1 split 10/93
3-for-2 split 5/02
Options: No
Shaded area indicates recession

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	© VALUE LINE PUB. INC.	05-07
	7.95	8.35	8.58	9.12	9.58	9.13	10.10	9.27	10.43	11.03	11.37	11.44	11.00	12.91	12.17	13.06	13.50	13.10	Revenues per sh	16.05
	1.67	1.36	1.13	1.44	1.49	1.78	1.81	1.67	1.58	1.75	1.75	1.65	2.04	2.25	2.09	2.53	2.45	2.55	"Cash Flow" per sh	3.25
	.81	.89	.65	.92	.94	1.19	1.15	1.11	.95	1.03	1.13	1.04	1.08	1.19	1.26	1.35	1.25	1.35	Earnings per sh A	1.80
	.53	.54	.57	.59	.72	.73	.77	.79	.80	.81	.82	.83	.84	.85	.86	.87	.87	.88	Div'd Decl'd per sh B■	.95
	2.17	2.45	2.38	2.46	2.53	2.77	2.31	1.90	2.43	2.19	2.40	2.58	3.11	4.30	3.03	3.18	2.30	2.55	Cap'l Spending per sh	3.15
	6.73	7.11	7.07	7.31	7.54	8.29	8.85	8.95	10.07	10.92	11.01	11.24	11.48	11.92	12.14	13.22	13.90	15.10	Book Value per sh	17.55
	9.27	9.31	9.35	9.39	9.43	9.91	9.96	11.71	11.77	11.77	11.83	13.44	13.44	13.44	13.44	15.12	15.12	15.20	Common Shs Outst'g S	16.80
	11.9	10.8	14.2	9.7	10.2	9.8	10.5	13.4	12.8	11.6	12.6	14.5	15.6	17.1	15.9	16.7	19.7		Avg Ann'l P/E Ratio	13.0
	.81	.67	1.18	.73	.76	.55	.84	.73	.84	.73	.79	.84	.91	.87	1.03	.85	1.03		Relative P/E Ratio	.85
	6.5%	7.2%	7.4%	7.7%	7.5%	7.0%	6.3%	5.3%	5.6%	5.7%	5.8%	5.5%	5.0%	4.2%	4.2%	3.9%	3.5%		Avg Ann'l Div'd Yield	4.1%
							100.7	108.5	122.7	129.8	151.6	153.8	148.1	173.4	184.0	197.5	205	220	Revenues ($mill)	270
							11.6	12.0	11.3	12.2	13.5	14.1	14.6	16.1	18.0	20.4	18.0	22.5	Net Profit ($mill)	30.5
							39.3%	31.3%	43.9%	41.9%	43.3%	41.1%	46.9%	46.0%	45.7%	43.0%	42.5%	42.5%	Income Tax Rate	43.0%
							---	---	---	---	---	---	---	---	---	---	---	Nil	AFUDC % to Net Profit	Nil
							48.2%	41.5%	40.5%	46.5%	41.9%	43.0%	43.6%	51.0%	47.2%	54.9%	54.0%	49.0%	Long-Term Debt Ratio	51.0%
							50.5%	57.4%	55.5%	52.9%	57.3%	55.3%	55.7%	48.4%	51.9%	44.7%	46.0%	51.0%	Common Equity Ratio	49.0%
							174.7	203.0	213.5	230.5	256.0	269.4	277.1	328.3	371.1	447.5	455	500	Total Capital ($mill)	595
							277.5	295.6	314.9	335.9	357.8	383.5	414.8	449.6	509.1	539.6	585	600	Net Plant ($mill)	715
							6.8%	7.8%	7.1%	7.2%	6.9%	6.9%	7.0%	6.5%	6.4%	6.1%	6.0%	6.0%	Return on Total Cap'l	6.5%
							12.5%	10.1%	9.4%	8.5%	9.0%	9.2%	9.4%	10.0%	9.0%	10.1%	9.0%	9.0%	Return on Shr. Equity	12.5%
							13.0%	10.2%	8.9%	10.0%	9.0%	9.2%	9.4%	10.1%	9.3%	10.1%	9.0%	9.0%	Return on Com Equity	10.5%
							4.4%	2.9%	1.6%	2.1%	2.4%	1.8%	2.1%	2.5%	2.0%	3.6%	2.5%	3.0%	Retained to Com Eq	2.0%
							67%	72%	84%	79%	73%	80%	78%	72%	68%	65%	70%	65%	All Div'ds to Net Prof	63%

CAPITAL STRUCTURE as of 9/30/02
Total Debt $280.0 mill. Due in 5 Yrs $33.3 mill.
LT Debt $245.2 mill. LT Interest $17.1 mill.
(Total interest coverage: 3.4x) (54% of Cap'l)

Leases, Uncapitalized: None
Pension Liability None

Pfd Stock None. Pfd Div'd None

Common Stock 15,167,149 shs. (46% of Cap'l)
as of 11/8/02
MARKET CAP: $375 million (Small Cap)

CURRENT POSITION ($MILL.)

	2000	2001	9/30/02
Cash Assets	5.8	30.5	11.2
Receivables	10.5	10.6	14.1
Inventory (Avg Cst)	1.1	1.0	1.1
Other	35.1	45.7	53.7
Current Assets	52.5	87.8	80.6
Accts Payable	11.9	13.9	18.1
Debt Due	45.7	20.8	14.8
Other	22.6	28.3	31.0
Current Liab.	80.2	63.8	64.0
Fix. Chg. Cov.	332%	327%	341%

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '99-'01 to '05-'07
Revenues	3.0%	3.0%	4.0%
"Cash Flow"	4.0%	5.0%	5.5%
Earnings	2.5%	4.0%	6.0%
Dividends	2.0%	1.0%	1.5%
Book Value	5.0%	4.0%	5.5%

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
1999	36.1	42.1	51.6	43.6	173.4
2000	38.7	45.4	55.3	44.5	184.0
2001	40.3	49.9	59.4	47.9	197.5
2002	44.5	52.8	61.8	46.1	205
2003	44.0	56.0	66.0	54.0	220

Calendar	EARNINGS PER SHARE A Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
1999	.22	.33	.49	.15	1.19
2000	.21	.29	.57	.21	1.28
2001	.21	.33	.63	.18	1.35
2002	.25	.36	.50	.14	1.25
2003	.19	.35	.61	.19	1.35

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
1999	.213	.213	.213	.213	.85
2000	.213	.213	.213	.217	.86
2001	.217	.217	.217	.217	.87
2002	.217	.217	.217	.221	.87
2003					

Target Price Range 2005 2006 2007

% TOT. RETURN 12/02

	DIVD	STOCK	VL ARITH. INDEX
1 yr.	2.8	-17.1	
3 yr.	7.4	-0.1	
5 yr.	68.9	19.7	

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Southern California Water Company, it supplies water to 75 communities in 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to approximately 21,800 customers in the city of Big Bear Lake and in areas of San Bernardino County. Acquired Chaparral City Water of Arizona (10/00); 11,400 customers. Has about 500 employees. Off. & dir. own less than 1% of common stock (3/02 Proxy). Chairman: Lloyd Ross. President & CEO: Floyd Wicks. Incorporated: CA. Add.: 630 East Foothill Boulevard, San Dimas, CA 91773. Tel.: 909-394-3600. Web: www.aswater.com.

American States Water Company earnings are under pressure. The California Public Utilities Commission (CPUC) has been difficult for the state's utilities to work with recently. It has been characterized by late decisions on rate cases, and American States' rate filings have been no exception. The company had to wait until this January before receiving $2.7 million in annual rate relief to offset the costs of a 2002 Infrastructure Replacement Program and other expenses, though the decision was originally expected in early 2002. The lack of timely approval of revenue increases prompted management to announce that 2002 share earnings would likely be under $1.35. It estimates that the regulatory delays reduced last year's share net by $0.09. Also, the impact of removing balancing-account treatment for supply costs hurt share earnings by $0.11. Flat water consumption probably didn't help 2002 revenues either.

We think the company will post a 2003 share-net advance of about 8%. Despite the regulatory delays, revenues will likely rise with the help of rate increases and population growth. The company expects to be awarded about $3.5 million in annual rate relief for a 2003 IRP (effective in the second quarter), and other rate increases should also be ordered. Although top-line growth is not as predictable as it used to be, management has been able to keep operating costs down, and we believe that this will continue.

American has modest earnings prospects out to 2005-2007. It should continue to receive rate increases over the period to offset infrastructure costs. Moreover, small acquisitions and population growth will probably fuel further top-line advances. We expect the company to look for attractive takeover targets outside of California in an effort to diversify its operations, since it has been subjected to a burdensome regulatory climate in the state. **These shares are ranked to underperform the year-ahead market,** due to poor price and earnings trends. Moreover, the stock offers below-average total-return potential over the coming 3- to 5-year period. Income-oriented investors can find more-attractive investment opportunities elsewhere.

Joseph Espaillat *January 31, 2003*

(A) Primary earnings. Excludes nonrecurring items: '91, 15¢; '92, 13¢. Next earnings report due early February.
(B) Next dividend meeting early February. Next ex date, mid-Feb. Div'd payment dates: 1st of March, June, Sept., Dec.■ Div'd reinvestment plan available.
(C) In millions, adjusted for splits.

Company's Financial Strength B+
Stock's Price Stability 85
Price Growth Persistence 45
Earnings Predictability 85

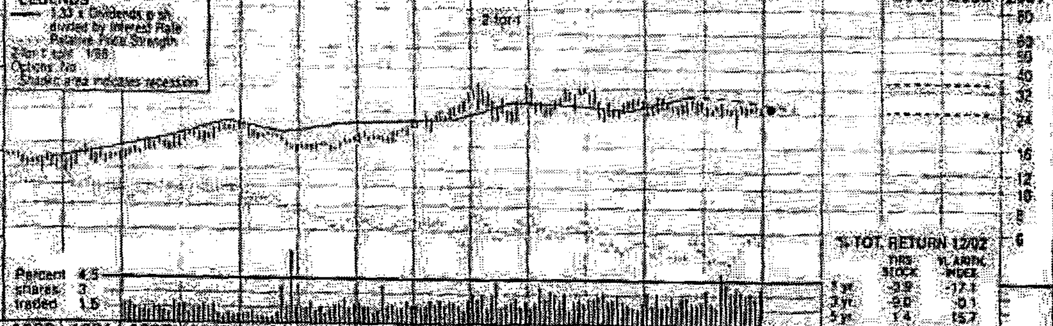
CALIFORNIA WATER NYSE-CWT

RECENT PRICE	25.60	P/E RATIO	19.7 (Trailing: 21.9 / Median: 15.0)	RELATIVE P/E RATIO	1.26	DIV'D YLD	4.4%	VALUE LINE	1422

TIMELINESS 3 Raised 9/13/02
SAFETY 2 Lowered 5/17/96
TECHNICAL 2 Raised 10/11/02
BETA .55 (1.00 = Market)

	High	Low
	15.6	11.1
	17.5	13.1
	20.6	16.1
	20.5	14.7
	17.5	14.8
	21.9	16.0
	28.6	18.6
	33.8	20.8
	32.0	22.6
	31.4	21.3
	28.5	22.9
	26.9	20.5

LEGENDS
— 1.33 x Dividends p sh divided by Interest Rate
Relative Price Strength
2-for-1 split 1/98
Options: No
Shaded area indicates recession



2005-07 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(+35%)	11%
Low	25	(Nil)	4%

Insider Decisions

	M	A	M	J	J	A	S	O	N
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	1Q2002	2Q2002	3Q2002
to Buy	21	23	26
to Sell	20	19	13
Hld's(000)	2556	2528	2833

% TOT. RETURN 12/02

	THIS STOCK	VL ARITH. INDEX
1 yr.	-3.9	-17.1
3 yr.	-9.0	-0.1
5 yr.	1.4	15.7

1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	© VALUE LINE PUB., INC.	05-07
9.89	10.13	10.03	10.33	10.93	11.16	12.29	13.34	12.59	13.17	14.48	15.49	14.76	15.56	16.18	16.25	17.45	16.55	Revenues per sh	18.60
1.79	1.94	1.87	1.89	1.97	1.98	1.92	2.25	2.02	2.07	2.50	2.82	2.60	2.75	2.52	2.20	2.60	2.80	"Cash Flow" per sh	3.50
1.21	1.32	1.23	1.20	1.25	1.21	1.09	1.35	1.22	1.17	1.51	1.83	1.45	1.53	1.31	.94	1.20	1.45	Earnings per sh A	1.95
.70	.74	.80	.84	.87	.90	.93	.96	.99	1.02	1.04	1.05	1.07	1.09	1.10	1.12	1.12	1.13	Div'd Decl'd per sh B ■	1.17
2.04	1.75	2.12	2.40	2.36	3.03	3.09	2.53	2.26	2.17	2.83	2.61	2.74	3.44	2.45	4.08	4.95	2.85	Cap'l Spending per sh	4.00
8.57	8.85	9.30	9.85	10.04	10.35	10.51	10.90	11.56	11.72	12.22	13.00	13.38	13.43	12.90	12.95	13.15	14.80	Book Value per sh C	18.50
11.07	11.33	11.34	11.36	11.38	11.38	11.38	11.38	12.49	12.54	12.62	12.62	12.62	12.94	15.15	15.18	15.20	16.80	Common Shs Outst'g D	18.80
11.0	10.5	11.5	10.6	10.4	11.2	14.1	13.6	14.1	13.7	11.9	12.5	17.8	17.8	19.6	27.1	20.6		Avg Ann'l P/E Ratio	14.5
.75	.70	.95	.80	.77	.72	.85	.80	.92	.92	.75	.72	.93	1.01	1.27	1.39	1.09		Relative P/E Ratio	.95
5.2%	5.3%	5.7%	6.6%	6.7%	5.6%	6.1%	5.2%	5.6%	6.4%	5.8%	4.6%	4.2%	4.0%	4.3%	4.4%	4.5%		Avg Ann'l Div'd Yield	4.1%
						139.8	151.7	157.3	165.1	182.8	195.3	186.3	208.4	244.8	246.8	265	280	Revenues ($mill)	350
						12.5	15.5	14.4	14.7	19.1	23.3	18.4	19.9	20.0	14.4	18.5	24.5	Net Profit ($mill)	37.0
						39.7%	40.6%	40.0%	40.1%	38.9%	37.4%	36.4%	37.9%	42.3%	39.4%	40.0%	40.0%	Income Tax Rate	40.0%
						--	--	--	--	--	--	--	--	--	--	Nil	Nil	AFUDC % to Net Profit	Nil
						49.8%	51.4%	46.6%	49.3%	47.4%	45.4%	44.2%	45.5%	48.9%	50.3%	54.0%	51.0%	Long-Term Debt Ratio	47.5%
						48.6%	48.2%	52.2%	49.7%	51.4%	53.5%	54.7%	52.0%	50.2%	48.8%	45.0%	48.5%	Common Equity Ratio	52.0%
						245.1	257.1	275.9	295.0	299.9	305.7	308.6	333.8	388.8	402.7	445	510	Total Capital ($mill)	670
						374.6	391.7	407.9	422.2	443.6	468.4	478.3	515.4	582.0	624.3	680	710	Net Plant ($mill)	900
						7.2%	8.1%	7.1%	6.8%	8.3%	9.4%	7.8%	7.8%	6.8%	5.3%	6.0%	6.5%	Return on Total Cap'l	7.0%
						10.2%	12.2%	9.7%	9.8%	12.1%	13.9%	10.7%	11.2%	10.0%	7.2%	9.0%	9.5%	Return on Shr. Equity	10.5%
						10.4%	12.4%	9.9%	9.9%	12.3%	14.1%	10.8%	11.4%	10.1%	7.2%	9.0%	10.0%	Return on Com Equity	10.5%
						1.5%	3.6%	1.8%	1.2%	3.8%	6.0%	2.8%	3.5%	1.8%	NMF	.5%	2.0%	Retained to Com Eq	4.0%
						88%	71%	81%	88%	69%	58%	74%	70%	82%	119%	93%	78%	All Div'ds to Net Prof	59%

CAPITAL STRUCTURE as of 9/30/02
Total Debt $260.3 mill. Due in 5 Yrs $39.6 mill.
LT Debt $241.8 mill. LT Interest $16.7 mill.

(LT interest earned: 4.6x; total int. cov.: 4.5x)

Pension Liability None

Pfd Stock $3.5 mill. Pfd Div'd $.15 mill.
139,000 shares, 4.4% cumulative ($25 par).

Common Stock 15,182,046 shs.
as of 10/31/02
MARKET CAP: $400 million (Small Cap)

CURRENT POSITION ($MILL.)	2000	2001	9/30/02
Cash Assets	3.2	1.0	3.0
Other	37.4	39.4	52.2
Current Assets	40.6	40.4	55.2
Accts Payable	26.5	24.0	29.1
Debt Due	16.1	26.6	18.5
Other	21.1	28.4	39.9
Current Liab.	63.7	79.0	87.5
Fix. Chg. Cov.	320%	219%	246%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '99-'01 to '05-'07
Revenues	4.0%	4.0%	2.5%
"Cash Flow"	2.5%	2.5%	6.0%
Earnings	.5%	-.5%	7.5%
Dividends	2.5%	1.5%	1.0%
Book Value	2.5%	2.0%	6.0%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
1999	38.8	52.1	64.0	50.5	208.4
2000	46.6	65.0	76.8	55.5	244.8
2001	47.0	67.0	76.3	56.5	246.8
2002	51.6	69.2	81.4	62.8	265
2003	56.0	74.0	84.0	66.0	280

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
1999	.20	.43	.62	.28	1.53
2000	.09	.40	.60	.22	1.31
2001	.01	.34	.39	.20	.94
2002	.12	.35	.50	.23	1.20
2003	.16	.41	.61	.27	1.45

Cal-endar	QUARTERLY DIVIDENDS PAID B ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
1999	.272	.271	.271	.271	1.09
2000	.275	.275	.275	.275	1.10
2001	.279	.279	.279	.279	1.12
2002	.28	.28	.28	.28	1.12
2003					

BUSINESS: California Water Service Group supplies water to about 2 million people (450,400 customers) through 25 separate water systems in 75 cities and communities in California, and Washington. Service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired Dominguez Services Corp. (5/00); Rio Grande Corp. (11/00). Revenue breakdown, '01: residential, 70%; business, 18%; public authorities, 5%; industrial, 4%; other, 3%. '01 reported deprec. rate: 3.1%. Has about 785 employees, 13,000 shareholders. Chairman: Robert W. Foy. President & CEO: Peter C. Nelson. Inc.: Delaware. Address: 1720 North First Street, San Jose, California 95112-4598. Tel.: 408-367-8200. Internet: www.calwater.com.

California Water's revenues should advance 5%-6% in 2003 . . . Although the California Public Utilities Commission's (CPUC) administrative delays have hurt all of the state's utilities, including CWT, the company ought to receive significant rate relief this year. A rate case filed in July, 2001 will likely be decided in a couple of months. The company may recover $9 million to $10 million of its costs. Also, the CPUC recently authorized water utilities to recover balancing accounts existing before a procedural change in November, 2001 that eliminated balancing accounts. The decision will allow California Water to seek the recovery of up to $6.4 million (it has already filed to recover $4.6 million). Most of the sought amount reflects a 48% increase in electricity rates in 2001. Moreover, a step rate increase of $1.65 million for a previous general rate case went into effect in January.

. . . and share net will likely move ahead nicely. California Water is holding costs down in a number of ways. For example, a low interest-rate environment is allowing the company to refinance some of its debt at lower rates. Too, it is trying to keep the number of new hires to a minimum. In an effort to conserve cash in an unfriendly regulatory environment, the utility has cut back on its capital expenditures. The completion of a newly constructed water treatment plant also means lower capital expenditures in 2003. Investors should note that management plans two equity offerings this year that should raise about $40 million. This would help put CWT's debt-to-equity ratio closer to its long-term goal of 50%.

The company has modest share-earnings growth potential out to 2005-2007. We believe that the regulatory environment in California will improve over time. The recent appointment of a new president of the CPUC ought to speed the change along. Also, rate increases, small acquisitions, and population growth should sustain top-line advances.

These good-quality shares are ranked to move in tandem with the year-ahead market. Although the payout ratio is presently high, we believe that management will hold onto tradition and raise dividends slightly out to 2005–2007.

Joseph Espaillat *January 31, 2003*

(A) Basic EPS. Excl. nonrecurring gain (loss): '97, 39¢; '00, (7¢); '01, 4¢; Q2 '02, 8¢. Next earnings report due late April.
(B) Next dividend meeting late April. Goes ex early Feb. Div'd payment dates: mid Feb., May, Aug., Nov. ■ Div'd reinvestment plan available.
(C) Incl. deferred charges. In '01: $28.8 mill., $1.90/sh.
(D) In millions, adjusted for split.

Company's Financial Strength	B++
Stock's Price Stability	85
Price Growth Persistence	50
Earnings Predictability	70

CONN. WATER SERVICES NDQ-CTWS

RECENT PRICE 26.20 | TRAILING P/E RATIO 23.0 | RELATIVE P/E RATIO 1.41 | DIV'D YLD 3.1% | VALUE LINE 4710

RANKS

PERFORMANCE 2 (Above Average)
Technical 2 (Above Average)
SAFETY 3 (Average)
BETA .60 (1.00 = Market)

Financial Strength B++
Price Stability 85
Price Growth Persistence 50
Earnings Predictability 95

LEGENDS
12 Mos Mov Avg
Rel Price Strength
3-for-2 split 9/98
3-for-2 split 9/01

	12.44 / 10.11	12.56 / 10.11	13.56 / 11.00	15.11 / 12.22	19.00 / 13.33	24.67 / 12.67	23.50 / 17.00	32.21 / 19.50	31.09 / 20.35	High / Low

45 27 18 13 8 5 4 3 200 VOL (000s)

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	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003/2004
SALES PER SH	5.90	5.88	5.69	5.67	5.58	5.87	5.70	5.93	--	
"CASH FLOW" PER SH	1.38	1.42	1.46	1.51	1.59	1.65	1.72	1.78	--	
EARNINGS PER SH	.92	.96	.97	1.00	1.02	1.03	1.09	1.13	1.24 A	1.23 C/NA
DIV'DS DECL'D PER SH	.73	.75	.75	.77	.78	.79	.79	.80	--	
CAP'L SPENDING PER SH	1.01	1.38	1.62	1.99	1.12	1.42	1.43	1.86	--	
BOOK VALUE PER SH	7.43	7.74	8.03	8.26	8.53	8.81	8.92	9.25	--	
COMMON SHS OUTST'G (MILL)	6.46	6.69	6.78	6.78	6.80	7.28	7.28	7.65	--	
AVG ANN'L P/E RATIO	11.9	11.7	12.5	12.9	15.5	18.2	18.2	21.5	21.1	21.3/NA
RELATIVE P/E RATIO	.78	.78	.78	.74	.81	1.04	1.18	1.10	--	
AVG ANN'L DIV'D YIELD	6.7%	6.6%	6.2%	6.0%	4.9%	4.2%	4.0%	3.3%	--	
SALES ($MILL)	38.1	39.4	38.6	38.5	37.9	42.6	41.5	45.4	--	
OPERATING MARGIN	60.9%	60.8%	44.9%	45.5%	46.2%	48.7%	48.8%	56.1%	--	
DEPRECIATION ($MILL)	3.1	3.2	3.3	3.5	3.9	4.5	4.7	5.0	--	
NET PROFIT ($MILL)	5.9	6.4	6.6	6.8	7.0	7.5	8.0	8.7	--	
INCOME TAX RATE	44.7%	43.8%	37.0%	35.1%	34.3%	40.1%	35.7%	36.1%	--	
NET PROFIT MARGIN	15.4%	16.2%	17.1%	17.7%	18.4%	17.6%	19.2%	19.1%	--	
WORKING CAP'L ($MILL)	d4.2	d4.7	d7.9	d10.4	d3.7	d3.8	.3	d3.3	--	
LONG-TERM DEBT ($MILL)	54.6	54.5	54.4	54.5	62.5	65.4	64.7	64.0	--	
SHR. EQUITY ($MILL)	48.8	52.8	55.2	58.8	58.7	63.3	65.7	71.6	--	
RETURN ON TOTAL CAP'L	7.6%	7.8%	7.6%	7.7%	7.3%	7.4%	7.6%	7.9%	--	
RETURN ON SHR. EQUITY	12.1%	12.1%	12.0%	12.0%	11.9%	11.8%	12.1%	12.1%	--	
RETAINED TO COM EQ	2.4%	2.7%	2.7%	2.9%	2.8%	3.1%	3.2%	3.6%	--	
ALL DIV'DS TO NET PROF	80%	78%	76%	77%	76%	74%	74%	71%	--	

Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.

A Adj. at analysts' changing earn. est. in last 18 days: 0 up, 0 down, contentious 5-year earnings growth 3.0% per year. B Based upon 2 analysts' estimates. C Based upon 2 analysts' estimates.

ANNUAL RATES

of change (per share)	5 Yrs.	1 Yr.
Sales	--	4.0%
"Cash Flow"	4.0%	3.0%
Earnings	2.5%	4.0%
Dividends	1.5%	1.5%
Book Value	3.0%	4.0%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
12/31/00	9.7	10.2	11.5	10.1	41.5
12/31/01	10.2	11.0	13.5	10.7	45.4
12/31/02	10.3	10.7	13.8		
12/31/03					

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
12/31/00	.21	.25	.37	.20	1.03
12/31/01	.22	.25	.37	.25	1.09
12/31/02	.30	.25	.38	.30	1.13
12/31/03	.28	.24	.50	.24	
12/31/04	.21	.26			

Calendar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2000	.198	.198	.20	.20	.80
2001	.20	.20	.202	.202	.80
2002	.202	.202	.205	.205	.81
2003	.205				

INSTITUTIONAL DECISIONS

	1Q'02	2Q'02	3Q'02
to Buy	15	11	14
to Sell	13	17	12
Hld's(000)	1128	1077	1147

ASSETS ($mill.)	2000	2001	9/30/02
Cash Assets	.3	.1	.9
Receivables	4.8	8.2	9.9
Inventory (Avg cost)	.8	.9	1.0
Other	3.2	.2	1.2
Current Assets	8.9	9.4	13.0
Property, Plant & Equip. at cost	254.6	283.7	--
Accum Depreciation	67.5	78.0	--
Net Property	187.0	205.7	210.9
Other	19.5	16.6	16.9
Total Assets	215.4	231.7	240.8
LIABILITIES ($mill.)			
Accts Payable	5.8	6.1	4.7
Debt Due	1.4	4.0	8.8
Other	1.4	2.6	.3
Current Liab	8.6	12.7	13.8

LONG-TERM DEBT AND EQUITY as of 9/30/02

Total Debt $72.5 mill. Due in 5 Yrs: NA
LT Debt $63.8 mill. Including Cap. Leases NA (46% of Cap'l)
Leases, Uncapitalized Annual rentals NA

Pension Liability None in '01 vs. None in '00

Pfd Stock $.8 mill. Pfd Div'd Paid $.1 mill. (1% of Cap'l)

Common Stock 7,569,716 shares (53% of Cap'l)

INDUSTRY: Water Utility

BUSINESS: Connecticut Water Services, Inc. acts as the parent company of The Connecticut Water Co. and other subsidiaries, which supply water for residential, commercial, industrial, and municipal purposes in Connecticut. Sales and distributions are affected by seasonal weather fluctuations throughout the year. Profitability is dependent on numerous factors, such as the quantity of rainfall and temperature in a given period of time, industrial demand, prevailing rates of interest for short-term and long-term borrowings, energy rates, and compliance with environmental and water-quality regulations. Connecticut Water owns and operates 10 water filtration treatment plants, including the Guilford Well, Rockville, Westbrook Well, MacKenzie, Hunt Well Field, Stafford Springs, and Reynolds Bridge. In October, Connecticut Water completed its acquisition of the Unionville Water Company in a stock transaction valued at about $6.3 million. Has 181 employees. Chairman, C.E.O. & President: Marshall T. Chiaraluce, Inc.: CT. Address: 93 West Main Street, Clinton, CT 06413. Tel.: 860 669-8636. Internet: http://www.ctwater.com.

M.S.

January 31, 2003

TOTAL SHAREHOLDER RETURN

Dividends plus appreciation as of 12/31/2002

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
-0.78%	-15.95%	-12.04%	30.00%	110.18%

MIDDLESEX WATER NDQ-MSEX

RECENT PRICE	TRAILING P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE
22.81	24.0	1.48	3.8%	4711

RANKS

PERFORMANCE 2 Above Average
Technical 2 Above Average
SAFETY 2 Above Average
BETA .55 (1.00 = Market)

Financial Strength B+
Price Stability 95
Price Growth Persistence 45
Earnings Predictability 65

14.17 12.50 12.83 15.00 17.17 26.33 22.63 24.97 26.72 High
10.50 10.17 10.33 10.92 12.83 14.00 16.67 19.58 18.30 Low

LEGENDS
12 Mos Mov Avg
Rel Price Strength
3-for-2 split 1/02

45 27 18 13 9 6 5 4 3 200 VOL (mill.)

© VALUE LINE PUBLISHING, INC.	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003/2004
SALES PER SH	5.97	6.08	6.03	6.29	5.85	7.13	7.18	7.82	--	
"CASH FLOW" PER SH	1.32	1.34	1.26	1.36	1.36	1.58	1.32	1.57	--	
EARNINGS PER SH	.89	.91	.80	.89	.94	1.01	.67	.88	.88 A	1.03 B/NA
DIV'DS DECL'D PER SH	.70	.72	.74	.75	.77	.79	.82	.83	--	
CAP'L SPENDING PER SH	.99	1.44	.98	1.60	3.57	3.10	1.76	1.67	--	
BOOK VALUE PER SH	7.42	7.65	7.80	8.00	9.09	9.27	9.31	9.48	--	
COMMON SHS OUTST'G (MILL)	6.05	6.23	6.31	6.60	7.36	7.50	7.59	7.83	--	
AVG ANN'L P/E RATIO	13.8	12.2	14.4	13.4	15.2	17.6	28.7	24.6	25.9	22.1/NA
RELATIVE P/E RATIO	.91	.82	.90	.77	.79	1.00	1.87	1.26	--	
AVG ANN'L DIV'D YIELD	5.7%	6.5%	6.4%	6.3%	5.4%	4.4%	4.2%	3.8%	--	
SALES ($MILL)	36.1	37.9	38.0	40.9	43.1	53.5	54.5	59.6	--	
OPERATING MARGIN	39.0%	38.8%	36.0%	37.2%	37.0%	33.9%	32.2%	47.2%	--	
DEPRECIATION ($MILL)	2.7	2.8	2.9	3.1	3.8	4.3	4.8	5.3	--	
NET PROFIT ($MILL)	5.5	5.7	5.2	5.9	6.5	7.9	5.3	7.0	--	
INCOME TAX RATE	35.6%	34.3%	32.8%	34.9%	31.5%	28.8%	33.1%	34.8%	--	
NET PROFIT MARGIN	15.2%	15.1%	13.6%	14.5%	15.1%	14.7%	9.7%	11.7%	--	
WORKING CAP'L ($MILL)	4.6	4.2	2.0	d2.9	14.8	6.8	d2.7	d.9	--	
LONG-TERM DEBT ($MILL)	49.5	53.0	53.0	52.9	79.0	82.3	81.1	86.1	--	
SHR. EQUITY ($MILL)	47.6	50.3	51.9	56.2	71.7	74.6	74.7	76.4	--	
RETURN ON TOTAL CAP'L	7.1%	6.9%	6.4%	6.8%	5.7%	6.4%	4.9%	5.5%	--	
RETURN ON SHR. EQUITY	11.5%	11.3%	10.0%	10.4%	9.1%	10.6%	7.1%	9.1%	--	
RETAINED TO COM EQ	2.4%	2.4%	.8%	1.7%	1.8%	2.5%	NMF	.5%	--	
ALL DIV'DS TO NET PROF	80%	80%	92%	89%	81%	78%	121%	94%	--	

Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.

A Yes, of analysts changing earn. est. in last 18 days: 0 up, 0 down, consensus 5-year earnings growth 6.0% per year. B Based upon one analyst's estimate. C Based upon one analyst's estimate.

ANNUAL RATES

of change (per share)	5 Yrs.	1 Yr.
Sales	4.0%	9.0%
"Cash Flow"	2.5%	19.5%
Earnings	--	30.5%
Dividends	2.5%	1.5%
Book Value	4.0%	2.0%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
12/31/00	13.0	14.1	14.4	13.0	54.5
12/31/01	13.1	14.7	16.1	15.7	59.6
12/31/02	14.2	15.5	17.0		
12/31/03					

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
12/31/99	.19	.33	.35	.13	1.01
12/31/00	.12	.17	.19	.19	.67
12/31/01	.11	.24	.30	.23	.88
12/31/02	.16	.24	.32	.16	
12/31/03	.15	.29			

Cal-endar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2000	.203	.203	.203	.207	.82
2001	.207	.207	.207	.21	.83
2002	.21	.21	.21	.215	.85
2003					

INSTITUTIONAL DECISIONS

	1Q'02	2Q'02	3Q'02
to Buy	19	21	18
to Sell	11	10	13
Hld's(000)	1069	1084	1058

ASSETS ($mill.)	2000	2001	9/30/02
Cash Assets	5.9	4.5	1.8
Receivables	5.3	9.5	10.3
Inventory (Avg cost)	1.0	1.0	1.1
Other	3.7	10.1	8.9
Current Assets	15.9	25.1	22.1
Property, Plant & Equip. at cost	227.1	242.7	
Accum Depreciation	38.8	43.6	--
Net Property	188.3	199.1	208.4
Other	15.8	12.2	12.5
Total Assets	219.4	236.4	243.0
LIABILITIES ($mill.)			
Accts Payable	2.4	3.4	2.1
Debt Due	6.3	13.6	17.9
Other	9.3	10.0	9.4
Current Liab	18.0	26.0	29.4

LONG-TERM DEBT AND EQUITY as of 9/30/02

Total Debt $105.4 mill. Due in 5 Yrs: NA
LT Debt $87.5 mill. Including Cap. Leases NA (53% of Cap'l)
Leases, Uncapitalized Annual rentals NA

Pension Liability $5.3 mill. in '01 vs. None in '00

Pfd Stock $4.1 mill. Pfd Div'd Paid $.3 mill. (2% of Cap'l)

Common Stock 7,745,159 shares (45% of Cap'l)

INDUSTRY: Water Utility

BUSINESS: Middlesex Water Company collects, treats, and distributes water for domestic, commercial, industrial, and fire-protection purposes. The company provides water services to retail customers primarily in eastern Middlesex County, NJ, where water services are furnished to approximately 57,000 retail customers, and in Delaware. The retail customers include residential customers, large industrial concerns, and commercial and light industrial facilities. The water utility plant consists of source of supply, pumping, water treatment transmission, distribution, and general facilities. Water is obtained from both surface and groundwater sources. It is also derived from groundwater sources equipped with electric-motor-driven, deep-well, turbine-type pumps. In December, Middlesex Water's Chairman and Chief Executive J. Richard Tompkins retired as CEO. Middlesex Water said President Dennis Sullivan will become CEO of the company. Has 184 employees. Chairman & C.E.O.: J. Richard Tompkins Inc.: NJ. Address: 1500 Ronson Road, Iselin, NJ 08830. Tel.: (732) 634-1500. Internet: http://www.middlesexwater.com.

A.Q.

January 31, 2003

TOTAL SHAREHOLDER RETURN

Dividends plus appreciation as of 12/31/2002

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
-5.69%	-16.67%	-3.90%	10.39%	73.58%

PHILA. SUBURBAN NYSE-PSC

RECENT PRICE	20.18	P/E RATIO	20.4 (Trailing: 23.5 Median: 16.0)	RELATIVE P/E RATIO	1.31	DIV'D YLD	2.8%	VALUE LINE	1423

TIMELINESS 3 Lowered 2/1/02

SAFETY 2 Raised 8/11/95

TECHNICAL 2 Raised 1/10/03

BETA .70 (1.00 = Market)

2005-07 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	35	(+75%)	17%
Low	25	(+25%)	8%

Insider Decisions

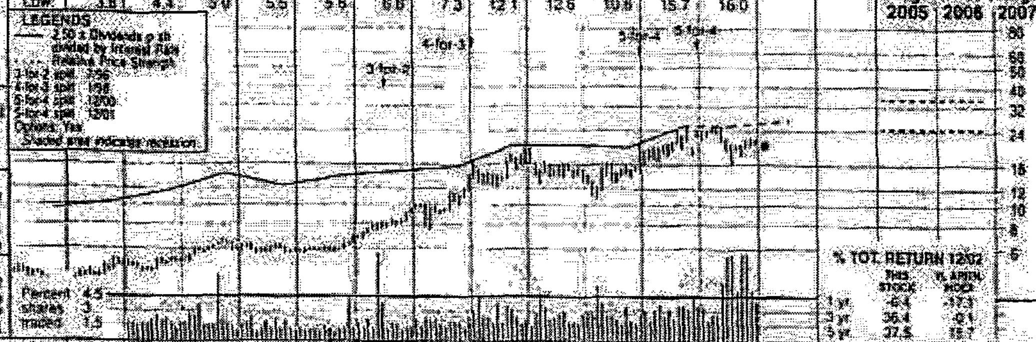
	M	A	M	J	J	A	S	O	N
to Buy	0	0	0	0	0	0	0	0	0
Options	0	1	0	1	0	0	0	0	0
to Sell	0	0	2	0	0	0	0	0	0

Institutional Decisions

	1Q2002	2Q2002	3Q2002
to Buy	68	68	99
to Sell	47	52	37
Hld's(000)	14776	16078	24196

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
High	5.2	5.3	6.6	8.3	8.9	9.5	14.2	19.2	19.2	20.0	24.6	25.0
Low	3.8	4.4	5.0	5.5	5.5	6.8	7.3	12.1	12.6	10.6	15.7	16.0

Target Price Range	2005	2006	2007



% TOT. RETURN 12/02

	THIS STOCK	VL ARITH. INDEX
1 yr.	-6.4	-17.3
3 yr.	36.4	-0.1
5 yr.	37.5	15.7

1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	© VALUE LINE PUB., INC.	05-07
4.42	4.60	5.57	5.67	3.37	3.57	3.04	2.84	3.03	3.35	3.11	3.35	3.49	4.02	4.11	4.49	4.60	5.05	Revenues per sh	6.10
.71	.75	.83	.81	.72	.74	.66	.70	.70	.78	.84	.93	1.02	1.20	1.26	1.44	1.60	1.80	"Cash Flow" per sh	2.30
.39	.35	.37	.34	.41	.41	.39	.41	.43	.49	.50	.57	.66	.70	.78	.85	.90	1.00	Earnings per sh A	1.40
.29	.30	.30	.30	.32	.32	.33	.34	.35	.36	.38	.40	.43	.45	.47	.50	.54	.57	Div'd Decl'd per sh B■	.67
.81	.92	1.10	1.44	1.26	.90	1.00	.78	.78	.87	.80	.95	1.35	1.50	1.83	1.81	1.95	2.10	Cap'l Spending per sh	2.55
3.46	3.52	3.60	3.65	3.50	3.45	3.48	3.81	4.01	4.10	4.48	4.73	5.34	5.71	6.42	6.91	7.50	8.10	Book Value per sh	9.85
22.48	22.59	22.62	23.55	24.39	24.65	30.72	35.54	35.87	38.25	39.45	40.49	41.32	61.08	67.10	68.39	68.00	69.50	Common Shs Outst'g C	72.00
12.8	14.0	12.3	12.9	10.2	10.8	12.5	14.4	13.5	12.0	15.6	17.9	22.9	21.2	19.2	23.6	23.6		Avg Ann'l P/E Ratio	22.0
.87	.94	1.02	.98	.76	.69	.76	.85	.89	.80	.98	1.03	1.17	1.21	1.18	1.21	1.29		Relative P/E Ratio	1.45
5.8%	6.0%	6.5%	6.9%	7.7%	7.2%	6.6%	5.9%	6.0%	6.2%	4.9%	3.9%	2.9%	3.0%	3.3%	2.5%	2.5%		Avg Ann'l Div'd Yield	2.2%
						93.3	101.2	108.6	117.0	122.5	136.2	151.0	257.3	275.5	307.3	325	350	Revenues ($mill)	440
						11.5	14.7	15.6	19.0	19.8	23.2	28.8	45.0	50.7	58.5	61.0	70.0	Net Profit ($mill)	100
						41.2%	41.5%	42.5%	40.4%	41.4%	40.6%	40.5%	36.4%	38.9%	39.3%	38.5%	39.0%	Income Tax Rate	39.0%
						2.3%	5.5%	.8%	1.6%	--	--	--	1.5%	4.2%	--	NIl	1.0%	AFUDC % to Net Profit	1.5%
						58.8%	49.9%	50.2%	51.9%	54.1%	54.4%	52.7%	52.9%	52.0%	52.2%	54.0%	52.0%	Long-Term Debt Ratio	51.0%
						39.5%	46.7%	47.4%	45.4%	44.0%	44.8%	45.6%	46.7%	47.6%	47.7%	46.0%	48.0%	Common Equity Ratio	49.0%
						270.5	291.2	303.1	338.0	401.7	427.2	496.6	782.7	801.1	890.4	1080	1150	Total Capital ($mill)	1450
						345.6	369.2	385.7	436.9	502.9	534.5	609.6	1135.4	1251.4	1388.1	1470	1600	Net Plant ($mill)	1950
						6.7%	7.1%	7.0%	7.7%	6.9%	7.4%	7.5%	7.6%	7.4%	7.6%	7.0%	7.5%	Return on Total Cap'l	8.0%
						9.8%	10.1%	10.4%	11.7%	10.7%	11.9%	12.3%	12.2%	11.7%	12.3%	12.0%	12.5%	Return on Shr. Equity	14.0%
						9.9%	10.2%	10.3%	11.7%	11.2%	12.0%	12.4%	12.3%	11.7%	12.4%	12.0%	12.5%	Return on Com Equity	14.0%
						1.6%	1.6%	2.1%	3.5%	2.8%	3.5%	4.5%	4.3%	4.7%	5.1%	5.0%	5.5%	Retained to Com Eq D	7.5%
						85%	85%	81%	71%	75%	70%	64%	65%	60%	59%	60%	57%	All Div'ds to Net Prof	48%

CAPITAL STRUCTURE as of 9/30/02

Total Debt $691.8 mill. Due in 5 Yrs $270.0 mill.

LT Debt $575.7 mill. LT Interest $40.0 mill.

(Total interest coverage: 3.4x)

Pension Liability None

Pfd Stock $.8 mill. Pfd Div'd $.1 mill.

Common Stock 67,809,954 shares as of 10/30/02

MARKET CAP: $1.4 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2000	2001	9/30/02
Cash Assets	8.0	20.8	31.4
Receivables	51.2	56.3	61.4
Inventory (AvgCst)	4.4	4.4	5.3
Other	7.1	8.1	4.4
Current Assets	70.7	89.6	102.5
Accts Payable	20.6	27.7	14.8
Debt Due	104.9	124.6	116.1
Other	47.7	50.3	62.1
Current Liab.	173.2	202.6	193.0
Fix. Chg. Cov.	269%	335%	320%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '99-'01 to '05-'07
Revenues	--	8.5%	6.5%
"Cash Flow"	5.5%	11.0%	10.0%
Earnings	7.0%	10.5%	10.5%
Dividends	4.0%	5.5%	6.0%
Book Value	6.0%	8.5%	7.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
1999	58.6	66.2	69.3	63.2	257.3
2000	64.5	68.5	73.3	69.2	275.5
2001	70.2	77.3	84.7	75.1	307.3
2002	71.7	76.6	91.9	84.8	325
2003	85.0	88.0	91.0	86.0	350

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
1999	.14	.19	.22	.15	.70
2000	.16	.19	.24	.19	.78
2001	.17	.22	.28	.18	.85
2002	.17	.20	.31	.22	.90
2003	.21	.25	.31	.23	1.00

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
1999	.109	.109	.115	.115	.45
2000	.115	.115	.115	.124	.47
2001	.124	.124	.124	.132	.50
2002	.132	.132	.132	.14	.54
2003					

BUSINESS: Philadelphia Suburban Corp., parent of Philadelphia Suburban Water Co. (PSWC), a regulated utility, provides water to approximately 2.0 million residents in Pennsylvania, Ohio, New Jersey, Illinois, Maine and North Carolina. Sold three of four non-water businesses in '91; sold telemarketing group in '93. Acquired Consumers Water 4/99. Water supply revenues '01: residential, 63%; commercial, 18%; industrial & other, 19%. Has about 950 employees, 20,920 stockholders. Vivendi S.A. controls 16.8% of common. Officers and directors own 1.5% of the common stock (4/02 Proxy). Chairman & CEO: Nicholas DeBenedictis. Incorporated: Pennsylvania. Address: 762 Lancaster Avenue, Bryn Mawr, PA 19010. Telephone: 610-527-8000. Internet: www.suburbanwater.com.

Philadelphia Suburban generated decent results in 2002. It benefited from 25 additional growth ventures (i.e., new contracts and acquisitions), plus higher water rates in New Jersey, Ohio, and Pennsylvania. But earnings were held back, to a certain extent, by decreased overall water consumption, arising mainly from drought restrictions in Pennsylvania and New Jersey and unfavorable weather conditions last June in certain Pennsylvania service areas. All things considered, we believe that PSC's share net reached $0.90 last year.

The company should continue to grow through the acquisition of public and private water systems, though future purchases are not included in our presentation due to timing issues and other uncertainties associated with that strategy. The cost of maintaining the water industry's infrastructure has been on the rise over the past several years, largely the result of environmental regulations calling for increased purification standards for drinking water. Given this operating environment, a number of smaller water firms have concluded that their interests are better served by selling out to larger players, like Philadelphia Suburban. The latest additions to PSC's portfolio include the wastewater system of Bridlewood, which serves 1,500 residents in Chester County, Pennsylvania; a water system serving 900 customers in Summit County, Ohio; White Rock Water Systems, which serves 825 residents in Cumberland County, Pennsylvania; and the assets of Brainards Mutual Water Association, serving 150 customers in Warren County, Pennsylvania.

These shares are ranked to perform only in line with the broader market averages for the coming six to 12 months. That's based on recent price and earnings momentum. Moreover, at the current quotation, it appears that some of the solid annual bottom-line growth we envision out to mid-decade has been accounted for, leaving the stock with below average long-term capital appreciation potential. But these shares have some positive attributes, including an Above Average Safety rank and good Price Stability rating.

Frederick L. Harris, III January 31, 2003

(A) Based on avg. shares outstanding. Excl. nonrec. gains (losses): '86, (8c); '90, (47c); '91, (43c); '92, (47c); '99, (14c); '00, 3c; '01, 2c; '02, 1c. Excl. gain from disc. operations: '96, 3c. Next earnings report due late Apr. (B) Next dividend meeting early Feb. Goes ex mid-Feb. Div'd payment dates: early March, June, Sept. & Dec. ■ Div'd reinvestment plan available. (C) In millions, adjusted for stock splits. (D) Return on common equity allowed by PA PUC in '91 rate adjustment: 12.0%. Return on avg. common equity in '01: 13.3%.

Company's Financial Strength	B+
Stock's Price Stability	80
Price Growth Persistence	90
Earnings Predictability	100

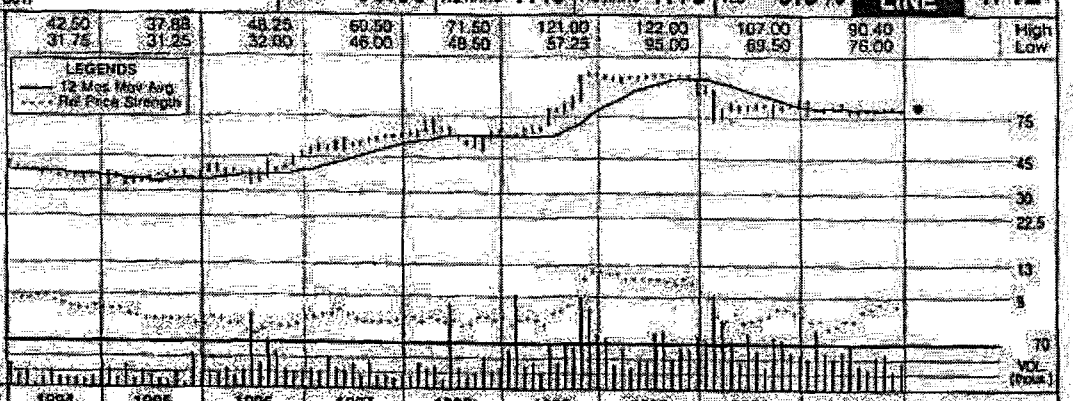
SJW CORP. AMEX-SJW

RECENT PRICE 83.90 | TRAILING P/E RATIO 17.9 | RELATIVE P/E RATIO 1.10 | DIV'D YLD 3.3% | VALUE LINE 4712

RANKS

PERFORMANCE 3 Average
Technical 3 Average
SAFETY 2 Above Average
BETA .50 (1.00 = Market)

Financial Strength B++
Price Stability 95
Price Growth Persistence 65
Earnings Predictability 85



© VALUE LINE PUBLISHING, INC.	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003/2004
SALES PER SH	30.59	29.96	32.38	34.72	33.47	36.42	40.44	44.59	--	
"CASH FLOW" PER SH	5.29	5.90	6.59	7.59	7.57	8.58	7.39	6.95	--	
EARNINGS PER SH	3.05	3.55	5.75	4.88	4.54	5.20	3.50	4.60	4.75[A,B]	4.85[C]/NA
DIV'DS DECL'D PER SH	2.10	2.10	2.22	2.28	2.34	2.40	2.46	2.57	--	
CAP'L SPENDING PER SH	5.34	5.76	6.33	7.60	10.85	10.60	11.31	15.76	--	
BOOK VALUE PER SH	32.02	33.48	37.86	42.12	45.19	47.25	47.40	49.05	--	
COMMON SHS OUTST'G (MILL)	3.25	3.25	3.17	3.17	3.17	3.05	3.05	3.05	--	
AVG ANN'L P/E RATIO	12.0	9.8	6.8	11.2	13.1	15.5	39.1	18.5	17.7	17.3/NA
RELATIVE P/E RATIO	.79	.66	.43	.65	.68	.88	2.15	.95	--	
AVG ANN'L DIV'D YIELD	5.7%	6.0%	5.7%	4.3%	3.8%	3.0%	2.1%	3.0%	--	
SALES ($MILL)	99.4	97.4	102.6	110.1	106.0	117.0	123.2	136.1	--	
OPERATING MARGIN	37.0%	41.1%	34.4%	34.8%	36.0%	33.2%	39.2%	64.4%	--	
DEPRECIATION ($MILL)	7.3	7.6	8.7	8.9	9.6	10.2	17.9	13.2	--	
NET PROFIT ($MILL)	9.9	11.5	18.6	15.2	14.4	15.9	10.7	14.0	--	
INCOME TAX RATE	39.2%	40.2%	32.8%	35.9%	40.2%	35.5%	41.0%	34.5%	--	
NET PROFIT MARGIN	10.0%	11.8%	18.1%	13.8%	13.6%	13.6%	8.7%	10.3%	--	
WORKING CAP'L ($MILL)	d1.7	10.7	11.9	7.0	9.4	d3.0	d11.4	d3.6	--	
LONG-TERM DEBT ($MILL)	62.5	76.5	75.0	75.0	90.0	90.0	99.0	110.0	--	
SHR. EQUITY ($MILL)	104.1	108.9	120.0	133.6	143.2	144.8	144.3	149.4	--	
RETURN ON TOTAL CAP'L	7.5%	7.5%	11.0%	8.7%	7.4%	8.2%	5.9%	6.7%	--	
RETURN ON SHR. EQUITY	9.5%	10.6%	15.5%	11.4%	10.1%	11.0%	7.4%	9.4%	--	
RETAINED TO COM EQ	2.9%	4.2%	9.5%	5.0%	4.5%	5.9%	2.2%	4.1%	--	
ALL DIV'DS TO NET PROF	69%	61%	39%	48%	52%	46%	70%	58%	--	

Bold figures are consensus earnings estimates and, using the recent price, P/E ratios.

[A] No. of analysts changing estim. est. in last 13 days: 0 up, 0 down, consensus 5-year earnings growth 4.0% per year. [B] Based upon one analyst's estimate. [C] Based upon one analyst's estimate.

ANNUAL RATES

of change (per share)	5 Yrs.	1 Yr.
Sales	6.0%	10.5%
"Cash Flow"	4.5%	21.0%
Earnings	1.5%	31.5%
Dividends	2.0%	4.5%
Book Value	7.0%	3.5%

Fiscal Year	QUARTERLY SALES ($mill.) 1Q	2Q	3Q	4Q	Full Year
12/31/00	23.6	33.1	39.2	27.3	123.2
12/31/01	24.2	35.4	44.2	31.3	136.1
12/31/02	27.7	38.7	46.2		
12/31/03					

Fiscal Year	EARNINGS PER SHARE 1Q	2Q	3Q	4Q	Full Year
12/31/99	.55	1.34	1.78	1.52	5.20
12/31/00	.41	.89	1.63	.54	3.50
12/31/01	.22	1.27	2.10	.91	4.60
12/31/02	.57	1.31	1.90	.97	
12/31/03					

Cal-endar	QUARTERLY DIVIDENDS PAID 1Q	2Q	3Q	4Q	Full Year
2000	.615	.615	.615	.615	2.46
2001	.615	.652	.652	.652	2.57
2002	.69	.69	.69	.69	2.76
2003					

INSTITUTIONAL DECISIONS

	1Q'02	2Q'02	3Q'02
to Buy	19	12	14
to Sell	10	12	12
Hld's(000)	598	629	616

ASSETS ($mill.)	2000	2001	9/30/02
Cash Assets	.6	5.0	.8
Receivables	6.4	12.6	23.0
Inventory (Avg cost)	.4	.5	.0
Other	7.7	1.2	2.8
Current Assets	15.3	20.1	26.6
Property, Plant & Equip. at cost	462.9	517.5	--
Accum Depreciation	139.4	149.7	--
Net Property	323.5	367.8	390.2
Other	53.1	42.8	43.7
Total Assets	391.9	431.0	459.5
LIABILITIES ($mill.)			
Accts Payable	4	4	5.6
Debt Due	11.2	11.5	18.1
Other	15.1	12.3	12.7
Current Liab	26.7	24.2	35.4

LONG-TERM DEBT AND EQUITY as of 9/30/02
Total Debt $128.1 mill. Due in 5 Yrs. NA
LT Debt $110.0 mill. Including Cap. Leases NA (42% of Cap'l)
Leases, Uncapitalized Annual rentals NA
Pension Liability None in '01 vs. None in '00
Pfd Stock None Pfd Div'd Paid None
Common Stock 3,045,147 shares (58% of Cap'l)

INDUSTRY: Water Utility

BUSINESS: SJW Corp. operates as a holding company with two wholly owned subsidiaries: San Jose Water Co. and SJW Land Co. San Jose Water Co. is a public utility in the business of providing water service to a population of approximately 988,000 in an area comprising about 138 square miles in the metropolitan San Jose area. SJW Land Co. owns and operates parking facilities adjacent to the company's headquarters and the San Jose Arena. It also owns commercial buildings in San Jose and a 70% limited partnership interest in 444 West Santa Clara Street, L.P. SJW produces, purifies, and distributes water. The company's water supply is obtained from wells, surface run-off, or diversion and by purchases from the Santa Clara Valley Water District. Has 289 employees. Chairman: Drew Gibson. Inc.: CA. Address: 374 West Santa Clara Street, San Jose, CA 95196. Tel.: 408 279-7810. Internet: http://www.sjwater.com.

A.O.

January 31, 2003

TOTAL SHAREHOLDER RETURN

Dividends plus appreciation as of 12/31/2002

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
0.91%	-1.97%	-6.09%	28.84%	49.94%

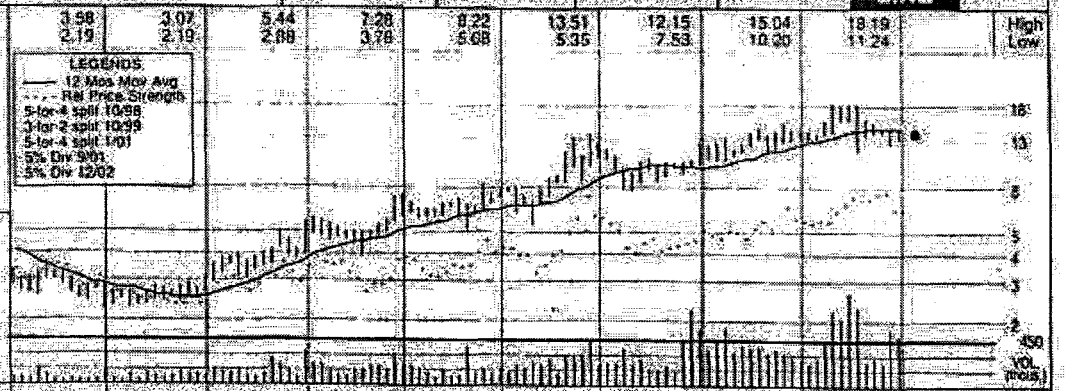
SOUTHWEST WATER NDQ-SWWC

RECENT PRICE 13.62 | TRAILING P/E RATIO 24.3 | RELATIVE P/E RATIO 1.50 | DIV'D YLD 1.8% | VALUE LINE 4713

RANKS

PERFORMANCE 3 Average
Technical 3 Average
SAFETY 3 Average
BETA .50 (1.00 = Market)

Financial Strength B+
Price Stability 70
Price Growth Persistence 75
Earnings Predictability 90



© VALUE LINE PUBLISHING, INC.	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003/2004
SALES PER SH	6.17	7.11	7.91	8.25	8.27	9.06	11.00	11.99	---	
"CASH FLOW" PER SH	.56	.64	.68	.78	.87	.95	1.11	1.27	---	
EARNINGS PER SH	.13	.17	.22	.30	.37	.48	.56	.62	.68[A,B]	.75[C]/NA
DIV'DS DECL'D PER SH	.12	.12	.13	.14	.15	.16	.19	.20	---	
CAP'L SPENDING PER SH	1.05	1.23	1.39	1.09	1.16	.77	.81	1.56	---	
BOOK VALUE PER SH	3.39	3.60	3.53	3.71	3.97	4.48	5.05	5.65	---	
COMMON SHS OUTST'G (MILL)	6.25	7.99	8.47	8.81	8.73	8.93	9.52	9.64	---	
AVG ANN'L P/E RATIO	22.3	14.6	16.6	15.8	17.2	19.6	17.0	19.8	19.7	18.2/NA
RELATIVE P/E RATIO	1.46	.98	1.04	.97	.89	1.12	1.11	1.01	---	
AVG ANN'L DIV'D YIELD	4.28%	4.7%	3.4%	2.7%	2.3%	1.8%	2.0%	1.7%	---	
SALES ($MILL)	50.9	56.8	66.2	71.0	72.2	80.9	104.7	115.5	---	
OPERATING MARGIN	14.6%	14.3%	14.6%	16.0%	17.1%	17.0%	16.1%	90.8%	---	
DEPRECIATION ($MILL)	3.6	3.7	3.9	4.2	4.3	4.5	5.3	5.1	---	
NET PROFIT ($MILL)	1.1	1.4	1.9	2.6	3.4	4.2	5.4	6.2	---	
INCOME TAX RATE	40.1%	39.0%	41.6%	41.6%	39.5%	39.0%	37.0%	36.0%	---	
NET PROFIT MARGIN	2.1%	2.5%	2.9%	3.7%	4.6%	5.2%	5.1%	5.4%	---	
WORKING CAP'L ($MILL)	d2.2	d7.3	d4.1	d6.7	d2.7	1.7	1.2	4.8	---	
LONG-TERM DEBT ($MILL)	20.5	19.6	30.7	29.8	33.4	33.5	46.4	58.1	---	
SHR. EQUITY ($MILL)	28.6	29.3	30.4	32.4	35.1	40.5	48.6	55.0	---	
RETURN ON TOTAL CAP'L	4.4%	5.3%	5.5%	6.8%	7.1%	7.6%	7.6%	7.6%	---	
RETURN ON SHR. EQUITY	3.7%	4.9%	6.3%	8.0%	9.5%	10.3%	11.1%	11.4%	---	
RETAINED TO COM EQ	3%	1.5%	2.9%	4.5%	6.0%	7.0%	7.9%	7.8%	---	
ALL DIV'DS TO NET PROF	93%	89%	55%	45%	38%	33%	31%	32%	---	

Bold figures are consensus earnings estimates and using the recent prices, P/E ratios.

[A] No. of analysts changing earn. est. in last 18 days: 0 up, 0 down; consensus 5-year earnings growth 8.0% per year. [B] Based upon 2 analysts' estimates. [C] Based upon 2 analysts' estimates.

ANNUAL RATES

of change (per share)	5 Yrs.	1 Yr.
Sales	8.5%	5.0%
"Cash Flow"	12.0%	14.0%
Earnings	25.0%	10.0%
Dividends	9.0%	7.5%
Book Value	7.5%	11.5%

QUARTERLY SALES ($mill.)

Fiscal Year	1Q	2Q	3Q	4Q	Full Year
12/31/00	20.5	26.6	31.1	26.5	104.7
12/31/01	23.2	27.8	32.0	32.5	115.5
12/31/02	26.2	32.7	34.8		
12/31/03					

EARNINGS PER SHARE

Fiscal Year	1Q	2Q	3Q	4Q	Full Year
12/31/99	.04	.12	.18	.11	.45
12/31/00	.05	.15	.23	.13	.56
12/31/01	.05	.17	.23	.17	.62
12/31/02	.05	.16	.18	.18	
12/31/03	.08	.20			

QUARTERLY DIVIDENDS PAID

Calendar	1Q	2Q	3Q	4Q	Full Year
2000	.044	.044	.044	.05	.18
2001	.05	.05	.05	.05	.20
2002	.053	.053	.053	.053	.21
2003	.061				

INSTITUTIONAL DECISIONS

	1Q'02	2Q'02	3Q'02
to Buy	7	25	24
to Sell	8	5	13
Hld's(000)	1618	2206	2098

ASSETS ($mill.)

	2000	2001	9/30/02
Cash Assets	1.4	.5	1.3
Receivables	17.8	21.4	17.2
Inventory	.8	.8	.8
Other	7.6	9.6	11.0
Current Assets	26.8	31.2	29.9
Property, Plant & Equip. at cost	214.5	233.0	---
Accum Depreciation	55.7	61.9	---
Net Property	157.8	171.1	185.6
Other	12.1	22.9	26.0
Total Assets	196.7	225.2	241.5

LIABILITIES ($mill.)

Accts Payable	5.0	6.2	5.5
Debt Due	5.2	5.0	3.1
Other	14.4	15.2	19.3
Current Liab	25.6	26.4	26.9

LONG-TERM DEBT AND EQUITY
as of 9/30/02

Total Debt $60.8 mill. Due in 5 Yrs. NA
LT Debt $58.7 mill. Including Cap. Leases NA (50% of Cap'l)
Leases, Uncapitalized Annual rentals NA

Pension Liability None in '01 vs. None in '00

Pfd Stock $.5 mill Pfd Div'd Paid NIl

Common Stock 9,750,318 shares (50% of Cap'l)

INDUSTRY: Water Utility

BUSINESS: Southwest Water Co. provides water and water-related services to more than three-quarters of a million people located throughout California, New Mexico, Texas, and Mississippi. Water utility operations are conducted through subsidiaries Suburban Water Systems and New Mexico Utilities, Inc. (NMU). Suburban supplies water for residential, business, industrial, and public authority use, and for private and public fire protection services. It operates under jurisdiction of the California Public Utilities Commission. NMU, operating under jurisdiction of the New Mexico Public Regulation Commission, supplies water for residential and private fire protection customers. Has 989 employees. Chairman, C.E.O. & President: Anton C. Garnier, Inc.: DE. Address: 225 North Barranca Avenue, Suite 200, West Covina, CA 91791. Tel.: 626 915-1551. Internet: http://www.southwestwater.com.

A.O.

January 31, 2003

TOTAL SHAREHOLDER RETURN

Dividends plus appreciation as of 12/31/2002

3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
-1.55%	-25.56%	0.12%	24.11%	107.61%

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WATER COMPANIES

COMPANY	LATEST 12 MONTHS EARNINGS AVAILABLE	PER SHARE EARNINGS	PER SHARE CURRENT ANNUAL DIVIDEND	DATA (1) BOOK VALUE (1)	DATA (1) STOCK PRICE 3/31	DATA (1) COMMON SHARES OS MILL	PERCENT (2) DIV PAYOUT	PERCENT (2) DIV YIELD	PERCENT (2) MKT/ BOOK	DIV/ BOOK (2)	PRICE EARN MULT
American States Water Co. (NYSE-AWR)	12/02 A	1.33	0.88	13.72	[illegible]	14.2	[illegible]	3.7	[illegible]	6.4	[illegible]
Artesian Resources Corp. (NDQ-ARTNA)	12/02 A	1.67	[illegible]	[illegible]	[illegible]	2.6	[illegible]	3.8	[illegible]	6.0	[illegible]
California Water Service Group (NYSE-CWT)	12/02 A	1.24	[illegible]	13.17	[illegible]	15.2	[illegible]	4.3	[illegible]	8.6	[illegible]
Connecticut Water Service, Inc. (NDQ-CTWS)	12/02 A	1.12	[illegible]	9.63	[illegible]	7.7	[illegible]	3.1	[illegible]	8.5	[illegible]
Middlesex Water Company (NDQ-MSEX)	12/02 A	0.97	[illegible]	9.80	[illegible]	7.7	[illegible]	3.9	[illegible]	8.8	[illegible]
Pennichuck Corporation (NDQ-PNNW)	12/02 A	0.96	[illegible]	12.64	[illegible]	2.8	[illegible]	4.0	[illegible]	6.8	[illegible]
Philadelphia Suburban Corp. (NYSE-PSC)	12/02 A	0.97	[illegible]	9.15	[illegible]	69.0	[illegible]	2.6	[illegible]	7.8	[illegible]
SJW Corporation (ASE-SJW)	12/02 A	4.67	[illegible]	50.71	[illegible]	3.0	[illegible]	3.7	[illegible]	5.7	[illegible]
Southwest Water Company (NDQ-SWWC)	12/02 A	0.68	[illegible]	6.53	[illegible]	9.3	[illegible]	1.9	[illegible]	3.9	[illegible]
York Water Company (NDQ-YORW)	12/02 A	0.59	[illegible]	5.82	[illegible]	6.3	[illegible]	1.3	[illegible]	9.3	[illegible]
AVERAGE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.4	[illegible]	7.8	[illegible]

INTERNATIONAL COMPANIES

COMPANY	LATEST 12 MONTHS EARNINGS AVAILABLE	PER SHARE EARNINGS	PER SHARE CURRENT ANNUAL DIVIDEND	DATA (1) BOOK VALUE (1)	DATA (1) STOCK PRICE 3/31	DATA (1) COMMON SHARES OS MILL	PERCENT (2) DIV PAYOUT	PERCENT (2) DIV YIELD	PERCENT (2) MKT/ BOOK	DIV/ BOOK (2)	PRICE EARN MULT
BCE, Inc. (NYSE-BCE)	12/02 A	1.32	[illegible]	6.70	[illegible]	905.0	[illegible]	4.2	[illegible]	11.7	[illegible]
BT Group PLC (NYSE-BTY)	12/02 A	1.31	[illegible]	(0.44)	[illegible]	861.9	[illegible]	2.7	[illegible]	NM	[illegible]
Philippine Long Distance Tel. Co. (NYSE-PHI)	12/02 A	0.45	[illegible]	9.84	[illegible]	169.0	[illegible]	0.0	[illegible]	NM	[illegible]
Telecom Argentina (NYSE-TEO)	12/02 A	-6.56	[illegible]	1.51	[illegible]	197.0	[illegible]	0.0	[illegible]	NM	[illegible]
Telecom New Zealand (NYSE-NZT)	12/02 A	0.19	[illegible]	2.86	[illegible]	234.4	[illegible]	4.7	[illegible]	31.1	[illegible]
AVERAGE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.3	[illegible]	21.1	[illegible]

WATER COMPANIES

COMPANY	OPER REV $ MILL (1)	% WAT REV	NET PLANT $ MILL	NET PLANT PER $ REV (1)
American States Water Co. (NYSE-AWR)	[illegible]	90	[illegible]	2.43
Artesian Resources Corp. (NDQ-ARTNA)	[illegible]	97	[illegible]	4.01
California Water Service Group (NYSE-CWT)	[illegible]	100	[illegible]	2.58
Connecticut Water Service, Inc. (NDQ-CTWS)	[illegible]	100	[illegible]	4.13
Middlesex Water Company (NDQ-MSEX)	[illegible]	100	[illegible]	3.08
Pennichuck Corporation (NDQ-PNNW)	[illegible]	73	[illegible]	2.49
Philadelphia Suburban Corp. (NYSE-PSC)	[illegible]	98	[illegible]	4.63
SJW Corporation (ASE-SJW)	[illegible]	98	[illegible]	1.81
Southwest Water Company (NDQ-SWWC)	[illegible]	41	[illegible]	0.91
York Water Company (NDQ-YORW)	[illegible]	100	[illegible]	4.80
AVERAGE	[illegible]	[illegible]	[illegible]	[illegible]

COMPANY	S&P BOND RATING	MOODY'S BOND RATING	COMMON EQUITY RATIO (3)	% RETURN ON BOOK VALUE: COMMON EQUITY (4)	% RETURN ON BOOK VALUE: TOTAL CAPITAL	REGULATION: ALLOWED ROE	REGULATION: ORDER DATE
American States Water Co. (NYSE-AWR)	[illegible]	A2	[illegible]	9.6	[illegible]	10.00	[illegible]
Artesian Resources Corp. (NDQ-ARTNA)	[illegible]	NR	[illegible]	9.6	[illegible]	10.50	[illegible]
California Water Service Group (NYSE-CWT)	[illegible]	A1	[illegible]	9.6	[illegible]	10.48	[illegible]
Connecticut Water Service, Inc. (NDQ-CTWS)	[illegible]	NR	[illegible]	11.6	[illegible]	12.70	[illegible]
Middlesex Water Company (NDQ-MSEX)	[illegible]	A2	[illegible]	9.8	[illegible]	10.25	[illegible]
Pennichuck Corporation (NDQ-PNNW)	[illegible]	NR	[illegible]	8.4	[illegible]	10.33	[illegible]
Philadelphia Suburban Corp. (NYSE-PSC)	[illegible]	NR	[illegible]	13.9	[illegible]	10.32	[illegible]
SJW Corporation (ASE-SJW)	[illegible]	NR	[illegible]	9.4	[illegible]	9.95	[illegible]
Southwest Water Company (NDQ-SWWC)	[illegible]	NR	[illegible]	12.1	[illegible]	10.00	[illegible]
York Water Company (NDQ-YORW)	[illegible]	NR	[illegible]	16.7	[illegible]	-	[illegible]
AVERAGE	[illegible]	[illegible]	[illegible]	11.1	[illegible]	10.50	[illegible]

INTERNATIONAL COMPANIES

COMPANY	OPER REV $ MILL (1)	% TEL REV LOCAL OR CLEC	NET PLANT $ MILL	NET PLANT PER $ REV (1)
IICE, Inc. (NYSE-IICE)	[illegible]	87	[illegible]	1.02
BT Group PLC (NYSE-BTY)	[illegible]	46	[illegible]	1.10
Philippine Long Distance Tel. Co. (NYSE-PHI)	[illegible]	28	[illegible]	3.26
Telecom Argentina (NYSE-TEO)	[illegible]	62	[illegible]	2.98
Telecom New Zealand (NYSE-NZT)	[illegible]	19	[illegible]	0.76
AVERAGE	[illegible]	[illegible]	[illegible]	[illegible]

COMPANY	S&P BOND RATING	MOODY'S BOND RATING	COMMON EQUITY RATIO (3)	% RETURN ON BOOK VALUE: COMMON EQUITY (4)	% RETURN ON BOOK VALUE: TOTAL CAPITAL	REGULATION: ALLOWED ROE	REGULATION: ORDER DATE
IICE, Inc. (NYSE-IICE)	[illegible]	A1	[illegible]	13.2	[illegible]	[illegible]	[illegible]
BT Group PLC (NYSE-BTY)	[illegible]	Baa1	[illegible]	8.8	[illegible]	[illegible]	[illegible]
Philippine Long Distance Tel. Co. (NYSE-PHI)	[illegible]	Ba3	[illegible]	5.8	[illegible]	[illegible]	[illegible]
Telecom Argentina (NYSE-TEO)	[illegible]	Ca	[illegible]	10.1	[illegible]	[illegible]	[illegible]
Telecom New Zealand (NYSE-NZT)	[illegible]	A3	[illegible]	NM	[illegible]	[illegible]	[illegible]
AVERAGE	[illegible]	[illegible]	[illegible]	9.2	[illegible]	[illegible]	[illegible]

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Dividends on Book Equity
Data From Value Line Publication of January 31,2003

Exhibit
Schedule D-4.4
Page 1
Witness: Bourassa

Line No.	ACC Staff Compan	Book Value Per Share 2002	Book Value Per Share 2001	Book Value Per Share 2000	Dividend Per Share 2002	Dividend Per Share 2001	Dividend Per Share 2000	Dividend on Book Value 2002	Dividend on Book Value 2001	Dividend on Book Value 2000
1	American States Water (	$ 14.05	$ 13.22	$ 12.74	$ 0.87	$ 0.87	$ 0.86	6.21%	6.58%	6.75%
2	California	15.79	12.95	12.90	1.12	1.12	1.10	7.09%	8.65%	8.53%
3	Connecticut Water Servi	10.07	9.25	8.92	0.81	0.80	0.79	8.07%	8.65%	8.86%
4	Middlesex Water Co.	9.85	9.48	9.31	0.88	0.83	0.82	8.94%	8.76%	8.81%
5	Philadelphia Suburban	7.04	6.91	6.42	0.54	0.50	0.47	7.67%	7.24%	7.32%
6	SJW Corp.	50.41	49.05	47.40	2.76	2.57	2.46	5.48%	5.24%	5.19%
7	Southwest Water	6.28	5.65	5.05	0.22	0.20	0.19	3.45%	3.54%	3.76%
8										
9	Simple Average of Dividends on Book Equity							6.70%	6.95%	7.03%
10										
11	Dividend Payout Ratio							66.04%	70.08%	71.63%
12										
13	Inplied equity return							10.15%	9.92%	9.82%
14	(Line 9 divided by line 11)									
15										
16										
17										
18										
19										
20										
21										
22										

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Growth Rates from Value Line Data
and/or Computed Growth Rates

Exhibit
Schedule D-4.5
Page 1
Witness: Bourassa

Line No.		
1	5-Year EPS Growth	6.89%
2	Projected EPS Growth	8.00%
3	5-Year DPS Growth	3.43%
4	Projected DPS Growth	2.83%
5	5-Year Intrinsic Growth, using :	5.08%
6	Projected Intrinsic Growth,	8.43%
7		
8	Average of Growth Rates	5.78%
9		
10		
11		
12		
13		
14		
15		
16		
17		

		Historic 5 Year Earnings Per Share Growth	Projected 5 Year Earnings Per Share Growth Rate	Historic 5 Year Dividend Growth	Projected Dividend Growth	Intrinsic Growth Historic 5 Year Book Value Growth	Intrinsic Growth Rate with Projected Book Value Growth	Average of all Columns
18	American States Water	4.00%	6.00%	1.00%	1.50%	4.37%	7.06%	3.37%
19	California	2.50%	7.50%	1.50%	1.00%	2.25%	6.03%	2.95%
20	Connecticut Water	2.50%		1.50%		3.60%		2.53%
21	Middlesex Water (a)	1.74%		2.50%		5.04%		3.09%
22	Philadelphia Suburban	10.50%	10.50%	5.50%	6.00%	9.42%	12.20%	8.38%
23	SJW Corp.	1.50%		3.00%		4.50%		3.00%
24	Southwest Water	25.50%		9.00%		6.36%		13.62%
25	Averages	6.89%	8.00%	3.43%	2.83%	5.08%	8.43%	5.25%
26	(a) Growth rate computed on line 24, Column K							
27	Spot Yields From Schedules XX multiplied							
28	by (1 + averages on Line 10)	3.58%	3.62%	3.46%	3.44%	3.52%	3.63%	3.53%
29	Growth Estimates Above	6.89%	8.00%	3.43%	2.83%	5.08%	8.43%	5.25%
30	Estimated DCF	10.47%	11.62%	6.89%	6.28%	8.60%	12.06%	8.77%
31								
32	Average of EPS & BV Growth	10.47%	11.62%			8.60%	12.06%	10.69%

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Estimate of Cost of Equity Using
Discounted Cash Flow Method

Exhibit
Schedule D-4.6
Page 1
Witness: Bourassa

Line No.	Company and Stock Exchange	Actual Dividend	4/16/03 Spot Price	Actual Dividend Yield Using Spot Price
1	American States Water - NYSE	$0.88	$24.13	3.65%
2	California Water - NYSE	1.12	26.29	4.26%
3	Connecticut Water - NASDA	0.80	25.35	3.16%
4	Middlesex Water -NASDA	0.86	21.92	3.92%
5	Philadelphia Suburban - NYSE	0.56	22.06	2.54%
6	SJW Corp.- ASE	2.92	80.50	3.63%
7	Southwest Water - NASDA	0.24	12.07	1.99%
8	Average Dividend Yield			3.31%
9				
10				
11				
12				
13				
14				
15		Dividend Growth	Dividend Yield times Growth	iscounte Cash Flow Method for Equity
16				
17		Estimate	Rate	Return
18	American States Water - NYSE	5.78%	3.86%	9.63%
19	California Water - NYSE	5.78%	4.51%	10.28%
20	Connecticut Water	5.78%	3.34%	9.12%
21	Middlesex Water	5.78%	4.15%	9.93%
22	Philadelphia Suburban - NYSE	5.78%	2.69%	8.46%
23	SJW Corp.	5.78%	3.84%	9.61%
24	Southwest Water - NASDA	5.78%	2.10%	7.88%
25				9.27%
26				

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Summary of Schedules D-4.9 through D-4.23, Except 4.18

Exhibit
Schedule D-4.7
Page 1
Witness: Bourassa

Line No.	Measure of Financial Integrity and Schedule Number	2002	2001	2000	Average of 2000-2002 If Applicable
1	Dividends Paid as a Percentage of Book Equity, Schedule D-4.9				
2	Simple Average of All Companies	6.98%	7.10%	7.10%	7.05%
3	**Pine Water Company, Inc Before**	0.00%	0.00%	0.00%	
4					
5	Interest Coverage (Pre-Tax), Schedule D-4.10				
6	All Companies Weighted	3.33	3.31	3.23	3.29
7	**Pine Water Company, Inc Before**	(30.82)	(19.92)	(2.99)	(18.37)
8					
9					
10	Retention Ratio, Schedule D-4.11				
11	Simple Average of All Companies	33.96%	29.92%	28.37%	
12	**Pine Water Company, Inc.**	100.00%	100.00%	100.00%	
13					
14					
15	Dividend Payout Ratio, Schedule D-4.12				
16	Simple Average of All Companies	66.04%	70.08%	71.63%	
17	**Pine Water Company, Inc.**	0.00%	0.00%	0.00%	
18					
19					
20	Capital Financing Net Plant, Schedule D-4.13				
21	COMMON EQUITY	32.10%	32.85%	33.99%	
22	PREFERRED STOCK	0.42%	0.50%	0.54%	
23	LONG-TERM DEBT	34.00%	34.33%	32.20%	
24	DEFERRED INCOME TAXES AND				
25	ADVANCES AND CONTRIBUTIONS	33.48%	32.32%	33.27%	
26	TOTALS	100.00%	100.00%	100.00%	
27					
28	**Pine Water Company, Inc** Before				
29	COMMON EQUITY	-34.96%	12.89%	42.04%	
30	LONG-TERM DEBT	17.18%	13.13%	-25.53%	
31	DEFERRED INCOME TAXES AND				
32	ADVANCES AND CONTRIBUTIONS	117.78%	73.98%	83.48%	
33	TOTALS	100.00%	100.00%	100.00%	
34					
35	**Pine Water Company, Inc** After				
36	COMMON EQUITY	21.29%	12.89%	42.04%	
37	LONG-TERM DEBT	24.53%	13.13%	-25.53%	
38	DEFERRED INCOME TAXES AND				
39	ADVANCES AND CONTRIBUTIONS	54.18%	73.98%	83.48%	
40	TOTALS	100.00%	100.00%	100.00%	
41					
42	Capital Financing Net Plant, Schedule D-4.13, and Rate of				
43	Return Assuming An Equity Return of 11.00%				
44					
45	Comparable Companies	6.74%			
46	Pine Water Company, Inc. Before Conversio	-2.82%			
47	Pine Water Company, Inc. After Conversion	4.52%			
48					
49	Market To Book Ratio, Schedule D-4.14				
50	Simple Average of All Companies	210.17%	274.43%	290.10%	
51	**Pine Water Company, Inc.**	(a)	(a)	(a)	

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Summary of Schedules D-4.9 through D-4.23, Except 4.18

Exhibit
Schedule D-4.7
Page 1
Witness: Bourassa

Line No.	Measure of Financial Integrity and Schedule Number	2002	2001	2000	Average of 2000-2002 If Applicable
1	Dividends Paid as a Percentage of Book Equity, Schedule D-4.9				
2	Simple Average of All Companies	6.98%	7.10%	7.10%	7.05%
3	**Pine Water Company, Inc Before**	0.00%	0.00%	0.00%	
4					
5	Interest Coverage (Pre-Tax), Schedule D-4.10				
6	All Companies Weighted	3.33	3.31	3.23	3.29
7	**Pine Water Company, Inc Before**	(30.82)	(19.92)	(2.99)	(18.37)
8					
9					
10	Retention Ratio, Schedule D-4.11				
11	Simple Average of All Companies	33.96%	29.92%	28.37%	
12	**Pine Water Company, Inc.**	100.00%	100.00%	100.00%	
13					
14					
15	Dividend Payout Ratio, Schedule D-4.12				
16	Simple Average of All Companies	66.04%	70.08%	71.63%	
17	**Pine Water Company, Inc.**	0.00%	0.00%	0.00%	
18					
19					
20	Capital Financing Net Plant, Schedule D-4.13				
21	COMMON EQUITY	32.10%	32.85%	33.99%	
22	PREFERRED STOCK	0.42%	0.50%	0.54%	
23	LONG-TERM DEBT	34.00%	34.33%	32.20%	
24	DEFERRED INCOME TAXES AND				
25	ADVANCES AND CONTRIBUTIONS	33.48%	32.32%	33.27%	
26	TOTALS	100.00%	100.00%	100.00%	
27					
28	**Pine Water Company, Inc** Before				
29	COMMON EQUITY	-34.96%	12.89%	42.04%	
30	LONG-TERM DEBT	17.18%	13.13%	-25.53%	
31	DEFERRED INCOME TAXES AND				
32	ADVANCES AND CONTRIBUTIONS	117.78%	73.98%	83.48%	
33	TOTALS	100.00%	100.00%	100.00%	
34					
35	**Pine Water Company, Inc** After				
36	COMMON EQUITY	21.29%	12.89%	42.04%	
37	LONG-TERM DEBT	24.53%	13.13%	-25.53%	
38	DEFERRED INCOME TAXES AND				
39	ADVANCES AND CONTRIBUTIONS	54.18%	73.98%	83.48%	
40	TOTALS	100.00%	100.00%	100.00%	
41					
42	Capital Financing Net Plant, Schedule D-4.13, and Rate of				
43	Return Assuming An Equity Return of 11.00%				
44					
45	Comparable Companies	6.74%			
46	Pine Water Company, Inc. Before Conversio	-2.82%			
47	Pine Water Company, Inc. After Conversion	4.52%			
48					
49	Market To Book Ratio, Schedule D-4.14				
50	Simple Average of All Companies	210.17%	274.43%	290.10%	
51	**Pine Water Company, Inc.**	(a)	(a)	(a)	

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Summary of Schedules D-4.9 through D-4.23, Except 4.18

Exhibit
Schedule D-4.7
Page 2
Witness: Bourassa

Line No.	Measure of Financial Integrity and Schedule Number	2002	2001	2000	Average of 2000-2002 If Applicable
1	Internal Cash Flow to Change in Gross Plant, Schedule D-4.15				
2	Simple Average of All Companies	64.25%	106.03%	74.07%	
3	**Pine Water Company, Inc.**	-291.42%	-400.19%	2505.65%	
4					
5					
6	Internal Cash Flow as a Percent of Long-Term Debt, Schedule D-4.16				
7	Simple Average of All Companies	18.38%	18.40%	19.60%	18.66%
8	**Pine Water Company, Inc.**	(b)	(b)	(b)	
9					
10					
11					
12	Safety Margin, Schedule D-4.17				
13	Simple Average of All Companies	19.01%	18.70%	18.24%	18.67%
14	**Pine Water Company, Inc.**	-36.46%	-27.25%	77.49%	1.80%
15					
16					
17	Weighted Earnings Per Share Compound Growth, Schedule D-4.19				
18	Simple Average of All Companies				6.93%
19	**Pine Water Company, Inc.**				-27.60%
20					
21					
22	Compound Growth in Book Value, Schedule D-4.20				
23	Simple Average of All Companies				2.90%
24	**Pine Water Company, Inc.**				-173.42%
25					
26					
27	Price Earnings Ratio, Schedule D-4.21				
28	Simple Average of All Companies	20.08	26.33	29.75	24.92
29	**Pine Water Company, Inc.**	(c)	(c)	(c)	(c)
30					
31	Return on Average Common Equity, Schedule D-4.22				
32	Simple Average of All Companies	10.66%	10.49%	10.36%	10.50%
33	**Pine Water Company, Inc.**	793.99%	-101.04%	1036.25%	17.66%
34					
35					
36	Test of Financial Viability, Schedule D-4.23				
37			Financial Viability Rating		
38	Simple Average of All Companies		3.26	Weak to Marginal	
39	**Pine Water Company, Inc** Before Conversion		(6.30)	Distressed	
40	**Pine Water Company, Inc** After Conversion		(2.68)	Distressed	
41					
42	(a) Not Applicable, as Stock is not publicly traded				
43	(b) Not Applicable, as no long-term debt				
44	(c) Not Computed, as stock not publicly traded				
45	(d) Distressed				

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Risk Factors to be Should be Considered
in Common Equity Return

Exhibit
Schedule D-4.8
Page 1
Witness: Bourassa

Line No.		
1	Business and Financial Risks:	
2		
3		
4	1	Extremely Small Size in Comparison to Nationally Traded Water
5		Utilties.
6		
7	2	Lack of Ready Access to Outside Capital Markets.
8		
9	3	Impact of Changes in Requirements at the:
10		Arizona Corporation Commission and,
11		Arizona Department of Environment Quality.
12		
13	4	Inability to secure Expense Adjuster before, or after
14		a rate case. Thus, exposure to increasing
15		expenses, with the only way to recover expense is to
16		incur substantial expense via a rate case.
17		
18	5	Low Depreciation Rates.
19		
20	6	Lack of reasonable cash flow from operations.
21		
22	7	Inability to actually collect from customer property taxes
23		which will be incurred.
24		
25	8	Highly leverage capital structure.
26		
27		

Pine Water Company, Inc.
Test Year Ended December 31, 2002
DIVIDENDS AS A PERCENT OF COMMON EQUITY DOLLARS
Dollar Amounts in 000's

Exhibit
Schedule D-4.9
Page 1
Witness: Bourassa

Line No.		2002	2001	2000	Average of 2000 to 2002
1	American States Water Co.				
2	Average Book Equity at 9/30/02	208,967	198,689	175,785	583,440
3	Dividends on Common Stock	13,194	13,104	12,230	38,528
4	Dividends as a Percent of Equtiy	6.31%	6.60%	6.96%	6.60%
5	California Water Service				
6	Average Book Equity	197,918	197,727	196,709	592,354
7	Dividends on Common Stock	17,004	16,918	16,235	50,157
8	Dividends as a Percent of Equtiy	8.59%	8.56%	8.25%	8.47%
9	Connecticut Water Service				
10	Average Book Equity	75,379	67845	63,741	206,965
11	Dividends on Common Stock	6,277	6105	5,890	18,272
12	Dividends as a Percent of Equtiy	8.33%	9.00%	9.24%	8.83%
13	Middlesex Water				
14	Average Book Equity	74,396	71,463	70,562	216,420
15	Dividends on Common Stock	6,510	6,304	6,149	18,964
16	Dividends as a Percent of Equtiy	8.75%	8.82%	8.71%	8.76%
17	Philadelphia Suburban				
18	Average Book Equity	482,907	451,652	398,864	1,333,423
19	Dividends on Common Stock	36,789	34,234	30,406	101,429
20	Dividends as a Percent of Equtiy	7.62%	7.58%	7.62%	7.61%
21	SJW				
22	Average Book Equity	151,427	146,840	144,110	442,376
23	Dividends on Common Stock	8,405	7,834	7,491	23,730
24	Dividends as a Percent of Equtiy	5.55%	5.34%	5.20%	5.36%
25	Southwest Water				
26	Average Book Equity	58,265	51,651	44,029	153,944
27	Dividends on Common Stock	2,142	1,981	1,646	5,769
28	Dividends as a Percent of Equtiy	3.68%	3.84%	3.74%	3.75%
29					
30	Simple Average of All				
31	Companies	6.98%	7.10%	7.10%	7.05%
32					
33	Weighted Average of All				
34	Companies				
35	Average Book Equity	1,249,257	1,185,865	1,093,799	3,528,920
36	Dividends on Common Stock	90,321	86,480	80,047	256,849
37	Dividends as a Percent of Equtiy	7.23%	7.29%	7.32%	7.28%
38					
39	Pine Water Company, Before				
40	Average Book Equity	(153)	91	278	217
41	Dividends on Common Stock	0	0	-	-
42	Dividends as a Percent of Equtiy	0.00%	0.00%	0.00%	0.00%

Pine Water Company, Inc.
Test Year Ended December 31, 2002
INTEREST COVERAGE (PRE-TAX) DOLLARS IN 000'S

Exhibit
Schedule D-4.10
Page 1
Witness: Bourassa

Line No.	COMPARATIVE COMPANIES	2002	2001	2000	Average of 2000-2002
1	American States Water Co.				
2	Operating Income	37,648	37,701	34,252	109,601
3	Income Tax	12,949	14,370	13,182	40,501
4	Total Available	50,597	52,071	47,434	150,102
5	Interest Expense	17,699	15,735	14,122	47,556
6	Interest Coverage	2.86	3.31	3.36	3.16
7	California Water Service				
8	Operating Income	30,297	25,151	33,196	88,644
9	Income Tax	12,568	9,728	11,571	33,867
10	Total Available	42,865	34,879	44,767	122,511
11	Interest Expense	16,841	16,029	14,646	47,516
12	Interest Coverage	2.55	2.18	3.06	2.58
13	Connecticut Water Service				
14	Operating Income	11,834	11,314	11,662	34,810
15	Income Tax	4,482	4,777	4,579	13,838
16	Total Available	16,316	16,091	16,241	48,648
17	Interest Expense	4,534	4,632	4,782	13,948
18	Interest Coverage	3.60	3.47	3.40	3.49
19	Middlesex Water				
20	Operating Income	12,467	11,493	9,938	33,898
21	Income Tax	3,878	3,714	2,637	10,228
22	Total Available	16,345	15,207	12,575	44,126
23	Interest Expense	5,143	5,042	4,997	15,183
24	Interest Coverage	3.18	3.02	2.52	2.91
25	Philadelphia Suburban				
26	Operating Income	98,458	95,364	84,208	278,030
27	Income Tax	42,046	38,976	34,105	115,127
28	Total Available	140,504	134,340	118,313	393,157
29	Interest Expense	40,395	39,859	40,360	120,614
30	Interest Coverage	3.48	3.37	2.93	3.26
31	SJW				
32	Operating Income	20,558	19,827	17,925	58,310
33	Income Tax	9,658	7,391	7,409	24,458
34	Total Available	30,216	27,218	25,334	82,768
35	Interest Expense	7,803	6,737	6,434	20,974
36	Interest Coverage	3.87	4.04	3.94	3.95
37	Southwest Water				
38	Operating Income	7,561	8,192	7,935	23,688
39	Income Tax	3,213	3,539	3,104	9,856
40	Total Available	10,774	11,731	11,039	33,544
41	Interest Expense	4,494	3,694	3,652	11,840
42	Interest Coverage	2.40	3.18	3.02	2.83
43	All Companies				
44	Operating Income	218,823	209,042	199,116	626,981
45	Income Tax	88,794	82,495	76,587	247,875
46	Total Available	307,617	291,537	275,703	874,856
47	Interest Expense	92,418	88,037	85,344	265,794
48	Interest Coverage	3.33	3.31	3.23	3.29
49	**Pine Water Company, Inc.**				
50	Operating Income	(237.14)	(177.79)	(21.33)	(436)
51	Income Tax	0	0	0	-
52	Total Available	(237.14)	(177.79)	(21.33)	(436)
53	Interest Expense	7.69	8.93	7.13	24
54	Interest Coverage	(30.82)	(19.92)	(2.99)	(18.37)
55					

Pine Water Company, Inc.
Test Year Ended December 31, 2002
RETENTION RATIO
(Amounts in $1,000's)

Exhibit
Schedule D-4.11
Page 1
Witness: Bourassa

Line No.		2002	2001	2000
1	American States Water Co.			
2	Net Income-Common	20,310	21,372	19,945
3	Dividends on Common Stock	13,194	13,104	12,230
4	Retention Ratio	35.04%	38.69%	38.68%
5	California Water Service			
6	Net Income-Common	19,073	14,965	19,963
7	Dividends Common	17,004	16,918	16,235
8	Retention Ratio	10.85%	-13.05%	18.67%
9	Connecticut Water Service			
10	Net Income-Common	8,742	8,401	7,858
11	Dividends on Common Stock	6,277	6,105	5,890
12	Retention Ratio	28.20%	27.33%	25.04%
13	Middlesex Water			
14	Net Income-Common	7,511	6,701	5,050
15	Dividends on Common Stock	6,510	6,304	6,149
16	Retention Ratio	13.32%	5.92%	-21.77%
17	Philadelphia Suburban			
18	Net Income-Common	67,155	60,005	52,784
19	Dividends on Common Stock	36,789	34,234	30,406
20	Retention Ratio	45.22%	42.95%	42.40%
21	SJW			
22	Net Income-Common	14,232	14,017	10,665
23	Dividends on Common Stock	8,405	7,834	7,491
24	Retention Ratio	40.95%	44.11%	29.76%
25	Southwest Water			
26	Net Income-Common	5,975	5,424	4,812
27	Dividends on Common Stock	2,142	1,981	1,646
28	Retention Ratio	64.15%	63.48%	65.79%
29				
30	Simple Average of All			
31	Companies	33.96%	29.92%	28.37%
32				
33	Average of All Companies		0	
34	Net Income-Common	137,023	125,461	116,265
35	Dividends on Common Stock	88,179	84,499	78,401
36	Retention Ratio	35.65%	32.65%	32.57%
37				
38	**Pine Water Company, Inc.**			
39	Net Income-Common	(244)	(187)	466
40	Dividends Common	0	0	0
41	Retention Ratio	100%	100%	100%

Pine Water Company, Inc.
Test Year Ended December 31, 2002
DIVIDEND PAYOUT RATIO
(Amounts in $1,000's)

Exhibit
Schedule D-4.12
PAGE 1
Witness: Bourassa

Line No.		2002	2001	2000
1	American States Water Co.			
2	Net Income-Common	20,310	21,372	19,945
3	Dividends on Common Stock	13,194	13,104	12,230
4	Payout Ratio	64.96%	61.31%	61.32%
5	California Water Service			
6	Net Income-Common	19,073	14,965	19,963
7	Dividends on Common Stock	17,004	16,918	16,235
8	Payout Ratio	89.15%	113.05%	81.33%
9	Connecticut Water Service			
10	Net Income-Common	8,742	8,401	7,858
11	Dividends on Common Stock	6,277	6,105	5,890
12	Payout Ratio	71.80%	72.67%	74.96%
13	Middlesex Water			
14	Net Income-Common	7,511	6,701	5,050
15	Dividends on Common Stock	6,510	6,304	6,149
16	Payout Ratio	86.68%	94.08%	121.77%
17	Philadelphia Suburban			
18	Net Income-Common	67,155	60,005	52,784
19	Dividends on Common Stock	36,789	34,234	30,406
20	Payout Ratio	54.78%	57.05%	57.60%
21	SJW			
22	Net Income-Common	14,232	14,017	10,665
23	Dividends on Common Stock	8,405	7,834	7,491
24	Payout Ratio	59.05%	55.89%	70.24%
25	Southwest Water			
26	Net Income-Common	5,975	5,424	4,812
27	Dividends on Common Stock	2,142	1,981	1,646
28	Payout Ratio	35.85%	36.52%	34.21%
29				
30	Simple Average of All			
31	Companies	66.04%	70.08%	71.63%
32				
33	Average of All Companies			
34	Net Income-Common	142,998	130,885	121,077
35	Dividends on Common Stock	90,321	86,480	80,047
36	Payout Ratio	63.16%	66.07%	66.11%
37				
38	**Pine Water Company, Inc.**			
39	Net Income-Common	(244)	(187)	466
40	Dividends on Common Stock	0	0	0
41	Payout Ratio	0.00%	0.00%	0.00%
42				
43				

Pine Water Company, Inc.
Test Year Ended December 31, 2002
CAPITAL FINANCING OF NET PLANT IN $000

Exhibit
Schedule D-4.13
Page 1
Witness: Bourassa

Line No.	Comparative Companies	2002 DOLLAR AMOUNT	2002 PERCENT OF TOTAL	2001 DOLLAR AMOUNT	2001 PERCENT OF TOTA	2000 DOLLAR AMOUNT	2000 PERCENT OF TOTAL
1	American States Water Co.						
2	Common Equity	213,279	34.28%	204,654	32.84%	192,723	35.93%
3	Preferred Equity	-	0.00%	1,880	0.30%	1,920	0.36%
4	Long-Term Debt	231,089	37.14%	245,692	39.43%	176,452	32.89%
5	Deferred Items (a)	177,762	28.57%	170,952	27.43%	165,334	30.82%
6	Totals	622,130	100.00%	623,178	100.00%	536,429	100.00%
7							
8	California Water						
9	Common Equity	199,217	28.10%	196,619	31.15%	198,834	32.98%
10	Preferred Equity	3,475	0.49%	3,475	0.55%	3,475	0.58%
11	Long-Term Debt	250,365	35.31%	202,600	32.10%	187,098	31.03%
12	Deferred Items (a)	255,984	36.10%	228,531	36.20%	213,462	35.41%
13	Totals	709,041	100.00%	631,225	100.00%	602,869	100.00%
14							
15	Connecticut Water						
16	Common Equity	79,975	32.08%	70,783	32.31%	64,906	31.38%
17	Preferred Equity	847	0.34%	847	0.39%	772	0.37%
18	Long-Term Debt	64,734	25.96%	63,953	29.19%	64,658	31.26%
19	Deferred Items (a)	103,765	41.62%	83,475	38.11%	76,489	36.98%
20	Totals	249,321	100.00%	219,058	100.00%	206,825	100.00%
21							
22	Middlesex Water						
23	Common Equity	76,501	35.58%	72,290	34.36%	70,635	35.07%
24	Preferred Equity	4,063	1.89%	4,063	1.93%	4,063	2.02%
25	Long-Term Debt	87,483	40.69%	88,140	41.89%	82,109	40.77%
26	Deferred Items (a)	46,978	21.85%	45,909	21.82%	44,586	22.14%
27	Totals	215,025	100.00%	210,403	100.00%	201,393	100.00%
28	Philadelphia Suburban						
29	Common Equity	493,097	33.08%	472,717	34.82%	430,587	34.90%
30	Preferred Equity	172	0.01%	1,116	0.08%	1,760	0.14%
31	Long-Term Debt	582,910	39.11%	516,520	38.04%	465,295	37.71%
32	Deferred Items (a)	414,359	27.80%	367,351	27.06%	336,253	27.25%
33	Totals	1,490,538	100.00%	1,357,704	100.00%	1,233,895	100.00%

34 (a) Deferred Income Taxes, Investment Tax Credits, Advances and Contributions in Aid of
35 Construction, and other deferred items, such as Deferred Regulatory Items.

Pine Water Company, Inc.
Test Year Ended December 31, 2002
CAPITAL FINANCING OF NET PLANT IN $000

Exhibit
Schedule D-4.13
Page 2
Witness: Bourassa

Line No.	Comparative Companies	2002 DOLLAR AMOUNT	2002 PERCENT OF TOTAL	2001 DOLLAR AMOUNT	2001 PERCENT OF TOTA	2000 DOLLAR AMOUNT	2000 PERCENT OF TOTAL
1	**SJW**						
2	Common Equity	153,499	35.73%	149,354	36.71%	144,325	39.52%
3	Preferred Equity	-	0.00%	-	0.00%	-	0.00%
4	Long-Term Debt	110,000	25.60%	110,000	27.04%	90,000	24.64%
5	Deferred Items (a)	166,124	38.67%	147,504	36.25%	130,863	35.83%
6	Totals	$429,623	100.00%	$406,858	100.00%	$365,188	100.00%
7							
8	Southwest Water						
9	Common Equity	$61,324	25.86%	$55,205	27.76%	$48,097	28.12%
10	Preferred Equity	513	0.22%	513	0.26%	514	0.30%
11	Long-Term Debt	80,985	34.15%	64,830	32.60%	46,351	27.10%
12	Deferred Items (a)	94,299	39.77%	78,327	39.39%	76,103	44.49%
13	Totals	$237,121	100.00%	$198,875	100.00%	$171,065	100.00%
14							
15	Simple Average of All Companies						
16	Common Equity	182,413	32.10%	174,517	32.85%	164,301	33.99%
17	Preferred Equity	1,296	0.42%	1,699	0.50%	1,786	0.54%
18	Long-Term Debt	201,081	34.00%	184,534	34.33%	158,852	32.20%
19	Deferred Items (a)	179,896	33.48%	160,293	32.32%	149,013	33.27%
20	Totals	564,686	100.00%	521,043	100.00%	473,952	100.00%
21							
22	All Companies Combined						
23	Common Equity	1,276,892	32.30%	1,221,622	33.49%	1,150,107	34.67%
24	Preferred Equity	9,070	0.23%	11,894	0.33%	12,504	0.38%
25	Long-Term Debt	1,407,566	35.61%	1,291,735	35.42%	1,111,963	33.52%
26	Deferred Items (a)	1,259,271	31.86%	1,122,049	30.76%	1,043,090	31.44%
27	Totals	3,952,799	100.00%	3,647,301	100.00%	3,317,664	100.00%
28							
29	Pine Water Company, Inc.						
30	Common Equity	(153)	-34.96%	91	12.89%	278	42.04%
31	Preferred Equity	-	0.00%	-	0.00%	-	0.00%
32	Long-Term Debt	75	17.18%	93	13.13%	(169)	-25.53%
33	Deferred Items (a)	515	117.78%	525	73.98%	552	83.48%
34	Totals	438	100.00%	709	100.00%	662	100.00%
35							
36	Pine Water Company, After Conversion						
37	Common Equity	203	21.29%	91	12.89%	278	42.04%
38	Preferred Equity	-	0.00%	-	0.00%	-	0.00%
39	Long-Term Debt	233	24.53%	93	13.13%	(169)	-25.53%
40	Deferred Items (a)	515	54.18%	525	73.98%	552	83.48%
41	Totals	951	100.00%	709	100.00%	662	100.00%
42							
43	(a) Deferred Income Taxes, Investment Tax Credits, Advances and Contributions in Aid of						
44	Construction, and other deferred items, such as Deferred Regulatory Items.						

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Comparison of Capital Structure and Cost of Capital
Amounts in $000"s

Exhibit
Schedule D-4.13
Page 3
Witness: Bourassa

Data from Schedule D-4.13, Pages 1 and 2

Capital Structures of All Companies Combined

Line No.		Dollar Amount of Capital	Percent of Total Capital	Cost Rate	Weighted Cost of Capital
9	Common Equity (a)	1,276,892	32.30%	12.00%	3.88%
10	Preferred Equity (a)	9,070	0.23%	6.00%	0.01%
11	Long-Term Debt (a)	1,407,566	35.61%	8.00%	2.85%
12	Deferred Items	1,259,271	31.86%	0.00%	0.00%
13	Totals & Weighted Cost of Capital	3,952,799	100.00%		6.74%

Capital Structure of
Pine Water Company, In Before Conversion

		Dollar Amount of Capital	Percent of Total Capital	Cost Rate	Weighted Cost of Capital
21	Common Equity (a)	(153)	-34.96%	12.00%	-4.20%
22	Preferred Equity (a)	-	0.00%	6.00%	0.00%
23	Long-Term Debt (a)	75	17.18%	8.00%	1.37%
24	Deferred Items	515	117.78%	0.00%	0.00%
25	Totals & Weighted Cost of Capital	438	100.00%		-2.82%

(a) Assumed Rates of Return

Capital Structure of
Pine Water Company, In After Conversion

		Dollar Amount of Capital	Percent of Total Capital	Cost Rate	Weighted Cost of Capital
35	Common Equity (a)	203	21.29%	12.00%	2.56%
36	Preferred Equity (a)	-	0.00%	6.00%	0.00%
37	Long-Term Debt (a)	233	24.53%	8.00%	1.96%
38	Deferred Items	515	54.18%	0.00%	0.00%
39	Totals & Weighted Cost of Capital	951	100.00%		4.52%

(a) Assumed Rates of Return

Pine Water Company, Inc.
Test Year Ended December 31, 2002
MARKET TO BOOK RATIO
(Amounts in $000's)

Exhibit
Schedule D-4.14
Page 1
Witness: Bourassa

Line No.	COMPANY	At December 31, 2002 MARKET VALUE	BOOK VALUE	RATIO OF MARKET VALUE TO BOOK VALUE	At December 31, 2001 MARKET VALUE	BOOK VALUE	RATIO OF MARKET VALUE TO BOOK VALUE	At December 31, 2000 MARKET VALUE	BOOK VALUE	RATIO OF MARKET VALUE TO BOOK VALUE
1	American States Water Co.	351,440	213,279	164.78%	528,409	204,654	258.20%	495,557	192,723	257.13%
2	American States Water Co. Data for 2002, at Sept. 30, 2002									
2										
3	California Water	359,054	199,217	180.23%	390,937	196,619	198.83%	408,402	198,834	205.40%
3										
4	Connecticut Water	200,319	79,975	250.48%	226,192	70,783	319.56%	232,929	64,906	358.87%
4										
5	Middlesex Water	162,924	76,501	212.97%	254,861	72,290	352.55%	236,491	70,489	335.50%
5										
6	Philadelphia Suburban	1,443,396	493,097	292.72%	1,562,723	472,717	330.58%	1,586,596	430,587	368.47%
6										
7	**SJW**	237,674	149,354	159.13%	259,721	149,354	173.90%	310,605	144,325	215.21%
7										
8	**Southwest Water**	129,307	61,324	210.86%	129,664	55,205	234.88%			
8										
9	Simple Average of All			210.17%			266.93%			290.10%
9	**Companies**									
10										
10	All Companies Combined	2,884,114	1,272,747	226.61%	3,352,506	1,221,622	274.43%	3,270,579	1,101,864	296.82%
9										
11										
10	**Pine Water Company, Inc.**									
12	Equity is not publicly traded									
11										
13										
12										

Pine Water Company, Inc.
Test Year Ended December 31, 2002
INTERNAL CASH FLOW TO CHANGE IN GROSS PLANT
AMOUNTS IN $000's

Exhibit
Schedule D-4.15
Page 1
Witness: Bourassa

Line No.	Companies	2002 CASH FLOW ($000's)	2002 CHANGE IN GROSS PLANT ($000's)	2002 RATIO	2001 CASH FLOW ($000's)	2001 CHANGE IN GROSS PLANT ($000's)	2001 RATIO	2000 CASH FLOW ($000's)	2000 CHANGE IN GROSS PLANT ($000's)	2000 RATIO
1	American States Water Co.	38,612	51,256	75%	39,323	38,048	103%	35,284	77,306	46%
2										
3	California Water	40,311	91,652	44%	34,191	58,377	59%	38,331	38,595	99%
4										
5	Connecticut Water	13,929	40,810	34%	13,238	19,932	66%	12,576	7,521	167%
6										
7	Middlesex Water	12,474	16,129	77%	11,753	12,599	93%	9,751	15,097	65%
8	Change Net Plant Used									
9	Philadelphia Suburban	111,477	122,726	91%	100,173	116,688	86%	86,884	168,729	51%
10										
11	**SJW**	28,245	34,692	81%	27,257	44,335	61%	22,512	30,630	73%
12										
13	**Southwest Water**	12,355	26,438	47%	11,484	4,202	273%	10,076	60,194	17%
14										
15	**Simple Average of all**									
16	**Companies**			64%			106%			74%
17										
18	All Companies Combined	257,403	383,703	67%	237,419	294,181	81%	215,414	398,072	54%
19										
20										
21	**Pine Water Company, Inc.**	(197)	68	-291%	(141)	35	-400%	519	21	2506%
22										
23										
24										

25 Cash flow computed as Net Income plus Depreciation Expense.

Pine Water Company, Inc.
Test Year Ended December 31, 2002
INTERNAL CASH GENERATION AS A
PERCENT OF LONG-TERM DEBT
Amounts in $000's

Exhibit
Schedule D-4.16
Page 1
Witness: Bourassa

LINE NO.	Companies	Cash Flow 2002	Long Term Debt 2002	Cash Flow Ratio	Cash Flow 2001	Long Term Debt 2001	Cash Flow Ratio	Cash Flow 2000	Long Term Debt 2000	Cash Flow Ratio	Average of 2000 to 2002
1	American States Water Co.	38,612	231,089	16.71%	39,323	245,692	16.00%	35,284	176,452	20.00%	17%
2											
3	California Water	40,311	250,365	16.10%	34,191	202,600	16.88%	38,331	187,098	20.49%	18%
4											
5	Connecticut Water	13,929	64,734	21.52%	13,238	63,953	20.70%	12,576	64,658	19.45%	21%
6											
7	Middlesex Water	12,474	87,483	14.26%	11,753	88,140	13.33%	9,751	82,109	11.88%	13%
8											
9	Philadelphia Suburban	111,477	582,910	19.12%	100,173	516,520	19.39%	86,884	465,295	18.67%	19%
10											
11	**SJW**	28,245	110,000	25.68%	27,257	110,000	24.78%	22,512	90,000	25.01%	25%
12											
13	**Southwest Water**	12,355	80,985	15.26%	11,484	64,830	17.71%	10,076	46,351	21.74%	18%
14											
15	**Simple Average of all**										
16	**Companies**			18.38%			18.40%			19.60%	18.66%
17											
18	All Companies Combined	257,403	1,407,566	18.29%	237,419	1,291,735	18.38%	205,338	1,065,612	19.27%	18.60%
19											
20											
21	**Pine Water Company, Inc.**	(196,965)	75,166	-262.04%	(140,583)	93,080	-151.03%	518,694	(168,864)	-307.17%	-29332%
22											

23 Cash flow computed as Net Income plus Depreciation Expense.

Pine Water Company, Inc.
Test Year Ended December 31, 2002
SAFETY MARGIN

Exhibit
Schedule D-4.17
Page 1
Witness: Bourassa

LINE NO.	COMPANY	2002	2001	2000	Combined 2000-2002
1	**AMERICAN STATES WATER CO.**				
2	Net Income	20,310	21,372	19,945	61,627
3	Income Tax	12,949	14,370	13,182	40,501
4	Preferred Dividend	29	84	86	199
5	Totals	33,288	35,826	33,213	102,327
6	Revenues	209,205	197,514	183,960	590,679
7	**Safety Margin**	15.91%	18.14%	18.05%	17.32%
8					
9	California Water				
10	Net Income	19,073	14,965	19,963	54,001
11	Income Tax	12,568	9,728	11,571	33,867
12	Preferred Dividend	-	-	-	-
13	Totals	31,641	24,693	31,534	87,868
14	Revenues	263,151	246,820	244,806	754,777
15	**Safety Margin**	12.02%	10.00%	12.88%	11.64%
16					
17	Connecticut Water				
18	Net Income	8,742	8,401	7,858	25,001
19	Income Tax	4,482	4,777	4,579	13,838
20	Preferred Dividend	38	38	38	114
21	Totals	13,262	13,216	12,475	38,953
22	Revenues	45,830	45,392	43,997	135,219
23	**Safety Margin**	28.94%	29.12%	28.35%	28.81%
24					
25	Middlesex Water				
26	Net Income	7,511	6,701	5,050	19,262
27	Income Tax	3,878	3,714	2,637	10,228
28	Preferred Dividend	255	255	255	765
29	Totals	11,643	10,670	7,942	30,255
30	Revenues	61,933	59,638	54,477	176,048
31	**Safety Margin**	18.80%	17.89%	14.58%	17.19%
32	Philadelphia Suburban				
33	Net Income	67,155	60,005	52,784	179,944
34	Income Tax	42,046	38,976	34,105	115,127
35	Preferred Dividend	52	106	106	264
36	Totals	109,253	99,087	86,995	295,335
37	Revenues	322,028	307,280	275,538	904,846
38	**Safety Margin**	33.93%	32.25%	31.57%	32.64%

Pine Water Company, Inc.
Test Year Ended December 31, 2002
SAFETY MARGIN

Exhibit
Schedule D-4.17
Page 2
Witness: Bourassa

LINE NO.	COMPANY	2002	2001	2000	Combined 2000-2002
1	**SJW**				
2	Net Income	14,232	14,017	10,665	38,914
3	Income Tax	9,658	7,391	7,409	24,458
4	Preferred Dividend	-	-	-	-
5	Totals	23,890	21,408	18,074	63,372
6	Revenues	145,652	136,083	123,157	404,892
7	**Safety Margin**	16.40%	15.73%	14.68%	15.65%
8					
9	**Southwest Water**				
10	Net Income	5,975	5,424	4,812	16,211
11	Income Tax	3,213	3,539	3,104	9,856
12	Preferred Dividend	27	27	27	81
13	Totals	9,215	8,990	7,943	26,148
14	Revenues	130,800	115,547	104,741	351,088
15	**Safety Margin**	7.05%	7.78%	7.58%	7.45%
16					
17	**Simple Average of All Companies**	19.01%	18.70%	18.24%	18.67%
18					
19	All Companies Combined				
20	Net Income	142,998	130,885	121,077	394,960
21	Income Tax	88,794	82,495	76,587	247,875
22	Preferred Dividend	401	510	512	1,423
23	Totals	232,192	213,890	198,176	644,258
24	Revenues	1,178,599	1,108,274	1,030,676	3,317,549
25	**Safety Margin**	19.70%	19.30%	19.23%	19.42%
26					
27	**Pine Water Company, Inc.**				
28	Net Income	(244,422)	(186,695)	466,254	35,137
29	Income Tax	-	-	-	-
30	Preferred Dividend				-
31	Totals	(244,422)	(186,695)	466,254	35,137
32	Revenues	670,447	685,233	601,693	1,957,373
33	**Safety Margin**	-36.46%	-27.25%	77.49%	1.80%
34					

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Interest Coverage and Debt Service
At Present and Proposed Rates

EXHIBIT
SCHEDULE D-4.18
PAGE 1
Witness: Bourassa

Present Rates

Line No.			Interest Coverage	Debt Service
1	Available for Interest Coverage:			
2	Operating Income	(a)	($132,727)	
3	Income Taxes		50	
4	Available for Interest Coverage:		($132,677)	
5	Interest Expense on Actual Debt		20,824	
6	Interest Coverage		(6.37)	
7				
8	Available for Debt Service:			
9	Operating Income	(a)		($132,727)
10	Add:			
11	Depreciation and Amortization Expense			35,496
12	Available for Debt Service			($97,231)
13	Debt Service (Interest and Principal			
14	Payments on Actual Debt)			71,900
15	Debt Service Coverage			(1.35)
16				

Company Proposed Rates

			Interest Coverage	Debt Service
20	Available for Interest Coverage:			
21	Operating Income	(a)	$74,324	
22	Income Taxes		16,010	
23	Available for Interest Coverage:		$90,334	
24	Interest Expense on Actual Debt		20,824	
25	Interest Coverage		4.34	
26				
27	Available for Debt Service:			
28	Operating Income	(a)		$74,324
29	Add:			
30	Depreciation and Amortization Expense			35,496
31	Available for Debt Service			$109,820
32	Debt Service (Interest and Principal			
33	Payments on Actual Debt)			71,900
34	Debt Service Coverage			1.53

35 (a) Operating Income Not Reduced for Meter Deposits Refunds.

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Weighted Earnings Per Share Compound Growth
(Earnings and Number of Shares in 000's,
Earning Per Share in Dollars)

Exhibit
Schedule D-4.19
Page 1
Witness: Bourassa

Line No.	Company	2002	2001	2000	2000-2002 Compound Earnings Growth Per Share
1	American States Water Co.				
2	Net Income	20,310	21,372	19,945	
3	Number of Shares	15,181	15,119	13,437	
4	Earnings Per Share	$ 1.34	$ 1.41	$ 1.48	-4.90%
5	California Water Service				
6	Net Income	19,073	14,965	19,963	
7	Number of Shares	15,182	15,182	15,126	
8	Earnings Per Share	$ 1.26	$ 0.99	$ 1.32	-2.29%
9	Connecticut Water				
10	Net Income	8,742	8,401	7,858	
11	Number of Shares	7,940	7,649	7,605	
12	Earnings Per Share	$ 1.10	$ 1.10	$ 1.03	2.75%
13	Middlesex Water				
14	Net Income	$ 7,511	$ 6,701	$ 5,050	
15	Number of Shares	7,769	7,626	7,533	
16	Earnings Per Share	$ 0.97	$ 0.88	$ 0.67	21.53%
17	Philadelphia Suburban				
18	Net Income	67,155	60,005	52,784	
19	Number of Shares	70,068	69,300	64,759	
20	Earnings Per Share	$ 0.96	$ 0.87	$ 0.82	11.87%
21	SJW				
22	Net Income	14,232	14,017	10,665	
23	Number of Shares	3,045	3,045	3,045	
24	Earnings Per Share	$ 4.67	$ 4.60	$ 3.50	15.48%
25	Southwest Water				
26	Net Income	$ 5,975	$ 5,424	$ 4,812	
27	Number of Shares	9,759	9,183	8,534	
28	Earnings Per Share	$ 0.61	$ 0.59	$ 0.56	4.05%
29					
30	Simple Average of Earnings Per Share Growth Rate				
31					6.93%
32					
33	Sum of All Companies				
34	Total Net Income	142,998	130,885	121,077	
35	Total Number of Shares	128,944	127,105	120,039	
36	Weighted Earnings				
37	Per Share	$ 1.11	$ 1.03	$ 1.01	4.95%
38					
39	**Pine Water Company, Inc.**				
40		Earnings In Dollars and Actual Shares			
41	Total Earnings	$ (244,422)	$ (186,695)	$ 466,254	
42	Total Number of Shares	1,000	1,000	1,000	
43	Earnings Per Share	$ (244)	$ (187)	$ 466	-27.60%
44	Tom: You need to recompute Pine Water's Earnings per share Growth				
45					

Pine Water Company, Inc.
Test Year Ended December 31, 2002
COMPOUND GROWTH IN BOOK VALUE
(Total Equity and Number of Shares in $ 000's, Book Value Per Share in Dollars)

Exhibit
Schedule D-4.20
Page 1
Witness: Bourassa

Line No.	Companies	2002	2001	2000	2000-2002 Compound Growth Rate
1	American States Water				
2	Total Equity	$ 213,279	$ 204,654	$ 196,386	
3	Number of Shares	15,181	15,119	15,119	
4	Book Value Per Share	$ 14.05	$ 13.54	$ 12.99	4.01%
5	**California Water Service**				
6	Total Equity	$ 199,217	$ 196,619	$ 198,834	
7	Number of Shares	15,182	15,182	15,126	
8	Book Value Per Share	$ 13.12	$ 12.95	$ 13.15	-0.10%
9	**Connecticut Water**				
10	Total Equity	$ 79,975	$ 70,783	$ 64,906	
11	Number of Shares	7,940	7,649	7,605	
12	Book Value Per Share	$ 10.07	$ 9.25	$ 8.54	8.63%
13	**Middlesex Water**				
14	Total Equity	$ 76,501	$ 72,290	$ 70,635	
15	Number of Shares	7,769	7,626	7,533	
16	Book Value Per Share	$ 9.85	$ 9.48	$ 9.38	3.65%
17	Philadelphia Suburban				
18	Total Equity	$ 493,097	$ 472,717	$ 430,587	
19	Number of Shares	70,068	69,300	64,759	
20	Book Value Per Share	$ 7.04	$ 6.82	$ 6.65	3.65%
21	**SJW**				
22	Total Equity	$ 153,499	$ 149,354	$ 144,325	
23	Number of Shares	3,045	3,045	3,045	
24	Book Value Per Share	$ 50.41	$ 49.05	$ 47.40	3.13%
25	**Southwest Water**				
26	Total Equity	$ 61,324	$ 55,205	$ 48,097	
27	Number of Shares	9,759	9,183	8,534	
28	Book Value Per Share	$ 6.28	$ 6.01	$ 5.64	3.49%
29					
30	**Simple Average of All**				
31	**Companies**	$ 14.93	$ 14.44	$ 14.01	2.90%
32					
33	**Sum of All Companies**				
34	Total Equity	$ 1,276,892	$ 1,221,622	$ 1,153,770	
35	Total Number of Shares	128,944	127,105	121,721	
36	Book Value Per Share	$ 110.82	$ 107.10	$ 103.73	3.36%
37					
38	**Pine Water Company, Inc.**				
39	Ending Equity	$ (153)	$ 91	$ 278	
40	Total Number of Shares	1	1	1	
41	Book Value Per Share	$ (153)	$ 91	$ 278	-173.42%

Pine Water Company, Inc.
Test Year Ended December 31, 2002
PRICE / EARNING RATIO
(DOLLAR AMOUNTS IN 000'S)

Exhibit
Schedule D-4.21
Page 1
Witness: Bourassa

LINE NO.	Companies	2002	2001	2000	2000-2002 Average
1	AMERICAN STATES WATER COMPANY				
2	Net Income to Common Equity	$ 20,310	$ 21,372	$ 19,945	$ 61,627
3	Total Market Value	351,440	528,409	495,557	1,375,406
4	Price Earnings Ratio	17.30	24.72	24.85	22.32
5					
6	**California Water Service**				
7	Net Income to Common Equity	19,073	14,965	19,963	$ 54,001
8	Total Market Value	359,054	390,937	408,402	1,158,393
9	Price Earnings Ratio	18.83	26.12	20.46	21.45
10					
11	**Connecticut Water**				
12	Net Income to Common Equity	8,742	8,401	7,858	$ 25,001
13	Total Market Value	200,319	226,192	232,929	659,439
14	Price Earnings Ratio	22.91	26.92	29.64	26.38
15					
16	**Middlesex Water**				
17	Net Income to Common Equity	7,511	6,701	5,050	$ 19,262
18	Total Market Value	162,924	254,861	241,063	658,848
19	Price Earnings Ratio	21.69	38.03	47.74	34.20
20					
21	Philadelphia Suburban				
22	Net Income to Common Equity	67,155	60,005	52,784	$ 179,944
23	Total Market Value	1,443,396	1,562,723	1,586,596	4,592,715
24	Price Earnings Ratio	21.49	26.04	30.06	25.52
25					
26	SJW				
27	Net Income to Common Equity	14,232	14,017	10,665	$ 38,914
28	Total Market Value	237,674	259,721	310,605	807,999
29	Price Earnings Ratio	16.70	18.53	29.12	20.76
30					
31	Southwest Water				
32	Net Income to Common Equity	5,975	5,424	4,812	$ 16,211
33	Total Market Value	129,307	129,664	126,986	385,957
34	Price Earnings Ratio	21.64	23.91	26.39	23.81
35					
36	**Simple Average of All**				
37	**Companies**	20.08	26.33	29.75	24.92
38					
39					
40	All Companies Combined				
41	Net Income to Common Equity	142,998	130,885	121,077	394,960
42	Total Market Value	2,884,114	3,352,506	3,402,137	9,638,756
43	Price Earnings Ratio	20.17	25.61	28.10	24.40
44					
45					
46	**Pine Water Company, Inc.**				
47	Equity not publicly traded, thus no price to earnings ratio is computed.				
48					
49					

Pine Water Company, Inc.
Test Year Ended December 31, 2002
RETURN ON AVERAGE COMMON EQUITY
(AVERAGE EQUITY AND NET INCOME IN 000's)

Exhibit
Schedule D-4.22
Page 1
Witness: Bourassa

Line No.	Comparative Companies	2002	2001	2000	Three Year Totals and Averages
1	American States Water				
2	Average Equity	$ 208,967	$ 198,689	$ 175,785	$ 583,440
3	Net Income	20,310	21,372	19,945	61,627
4	Return on Average Equity	9.72%	10.76%	11.35%	10.56%
5					
6	**California Water Service**				
7	Average Equity	197,918	197,727	196,709	592,354
8	Net Income	19,073	14,965	19,963	54,001
9	Return on Average Equity	9.64%	7.57%	10.15%	9.12%
10					
11	**Connecticut Water**				
12	Average Equity	75,379	67,845	63,741	206,965
13	Net Income	8,742	8,401	7,858	25,001
14	Return on Average Equity	11.60%	12.38%	12.33%	12.08%
15					
16	**Middlesex Water**				
17	Average Equity	74,396	71,463	70,562	216,420
18	Net Income	7,511	6,701	5,050	19,262
19	Return on Average Equity	10.10%	9.38%	7.16%	8.90%
20					
21	Philadelphia Suburban				
22	Average Equity	482,907	451,652	398,864	1,333,423
23	Net Income	67,155	60,005	52,784	179,944
24	Return on Average Equity	13.91%	13.29%	13.23%	13.49%
25					
26	**SJW**				
27	Average Equity	151,427	146,840	144,110	442,376
28	Net Income	14,232	14,017	10,665	38,914
29	Return on Average Equity	9.40%	9.55%	7.40%	8.80%
30					
31	Southwest Water				
32	Average Equity	58,265	51,651	44,029	153,944
33	Net Income	5,975	5,424	4,812	16,211
34	Return on Average Equity	10.25%	10.50%	10.93%	10.53%
35					
36	**Simple Average of All Companies**	10.66%	10.49%	10.36%	10.50%
37					
38	**Sum of All Companies**				
39	Total Equity	$1,249,257	$ 1,185,865	$ 1,093,799	$ 3,528,920
40	Total Net Income	142,998	130,885	121,077	394,960
41	Return on Average Equity	11.45%	11.04%	11.07%	11.19%
42					
43					
44	**Pine Water Company, Inc.**				
45	Average Equity	(31)	185	$ 45	199
46	Net Income	(244)	(187)	$ 466	35
47	Return on Average Equity	793.99%	-101.04%	1036.25%	17.66%

Pine Water Company, Inc.
Test Year Ended December 31, 2002
Test of Financial Viability

Exhibit
Schedule D-4.23
Page 1
Witness: Bourassa

Line No.	Ratio Label	Ratio Computation	American States Water 2002	Calif. Water Service 2002	Con-necticut Water Service 2002	Middle-sex Water 2002	Phil. Surb. Water 2002	SJW 2002	Southwest Water 2002	Average of Ratioes of All Companies 2002	Pine Water Company, Inc. 2002	Proposed Pine Water Company, Inc. 2002
1	Profit-	Net Income + Depreciation	0.18	0.15	0.30	0.20	0.35	0.19	0.09	0.21	-0.29	0.10
2	ability	Annual Operating Revenues										
3											(a)	(a)
4	Liquid-	Current Assets	0.65	0.47	0.67	0.69	0.31	0.79	0.94	0.65	**0.06**	**0.33**
5	ity	Current Liabilities										
6												
7	Lever-	Common Stock Equity	0.30	0.25	0.30	0.31	0.29	0.34	0.23	0.29	-0.14	0.18
8	age	Total Assets										
9												
10	Profit	Retained Earnings	0.40	0.75	0.34	0.30	0.37	0.86	0.30	0.47	-6.93	-5.23
11	Trend	Common Stock Equity										
12												
13	Growth &											
14	Effic-	Annual Operating Revenue	0.30	0.33	0.17	0.25	0.19	0.32	0.49	0.29	0.63	0.80
15	iency	Total Assets										
16												
17	Effic-											
18	iency &	Annual Operating Revenue	1.22	1.13	1.35	1.25	1.44	1.16	1.06	1.23	0.74	1.09
19	Profit-	Annual Operating Expenses										
20	ability											
21												
22	Profit-	Net Income	0.10	0.07	0.19	0.12	0.21	0.10	0.05	0.12	-0.36	0.06
23	ability	Annual Operating Revenues										
24												
25		Totals	3.16	3.15	3.32	3.13	3.15	3.77	3.16	3.26	-6.30	-2.68
26			Weak to	Weak to	Weak to	Weak to	Weak to	Weak to	Weak to	Weak to	Distressed	Distressed
27			Marginal	Marginal	Marginal	Marginal	Marginal	Marginal	Marginal	Marginal		

28 Test of Financial Viability from:
29 **Viability Policies and Assessment Methods for Small Water Utilities,**
30 The National Regulatory Research Institute

(a) Results for applicant are being distorted by High Accounts Receivables

31
32 Distress Classification Model
33 If Distress Score is:
34 4.00 or more Good to excellent
35 3.00 to 3.99 Weak to marginal
36 3.00 or less Distressed

Pine Water Company
Test Year Ended December 31, 2002
Comparative Balance Sheets

Exhibit
Schedule E-1
Page 1
Witness: Bourassa

Line No.		Test Year Ended 12/31/02	Prior Year Ended 12/31/01	Prior Year Ended 12/31/00
1	**ASSETS**			
2	Plant In Service	$ 1,891,594	$ 1,824,007	1,788,878
3				
4	Non-Utility Plant	-	-	
5	Construction Work in Progress	-	-	0
6	Less: Accumulated Depreciation	(1,228,209)	(1,180,752)	(1,134,640)
7	Net Plant	$ 663,385	$ 643,255	$ 654,238
8				
9	Debt Reserve Fund	$ -	$ -	$ -
10				
11	CURRENT ASSETS			
12	Cash and Equivalents	$ -	$ -	
13	Accounts Receivable, Net	18,111	19,774	15,071
14	Notes/Receivables from Associated Compani	-	-	-
15	Materials and Supplies	-	-	-
16	Prepayments	18,040	18,850	19,660
17	Other Current Assets	3,725	3,725	3,724
18	Total Current Assets	$ 39,876	$ 42,348	$ 38,455
19				
20	Deferred Debits	$ 369,000	$ 369,000	$ 369,000
21				
22	Other Investments & Special Funds	$ -	$ -	$ -
23				
24	TOTAL ASSETS	$ 1,072,261	$ 1,054,603	$ 1,061,693
25				
26				
27	**LIABILITIES AND STOCKHOLDERS' EQUITY**			
28				
29	Common Equity	$ (152,996)	$ 91,427	278,121
30				
31	Long-Term Debt	$ 55,353	$ 75,166	$ 93,080
32				
33	CURRENT LIABILITIES			
34	Accounts Payable	$ 59,388	$ 44,061	4,988
35	Current Portion of Long-Term Debt	-	-	
36	Payables to Associated Companies	533,599	277,182	96,400
37	Customer Deposits	21,356	20,410	15,708
38	Taxes Payable	-	-	0
39	Interest Payable	-	-	
40	Other Current Liabilities	40,096	21,796	21,140
41	Total Current Liabilities	$ 654,440	$ 363,450	$ 138,236
42	DEFERRED CREDITS			
43	Advances in Aid of Construction	$ 52,072	$ 36,964	$ 40,457
44	Accumulated Deferred Income Taxes	-	-	-
45	Contributions In Aid of Construction, Net	463,392	487,595	511,799
46	Accumulated Deferred Income Credits	-	-	-
47	Total Deferred Credits	$ 515,464	$ 524,559	$ 552,256
48				
49	Total Liabilities & Common Equity	$ 1,072,261	$ 1,054,603	$ 1,061,693
50				
51				
52	SUPPORTING SCHEDULES:		RECAP SCHEDULES:	
53	E-5			
54	A-3			
55				

Pine Water Company
Test Year Ended December 31, 2002
Comparative Income Statements

Exhibit
Schedule E-2
Page 1
Witness: Bourassa

Line No.		2002	2001	2000
1	**Revenues**			
2	Metered Water Revenues	$ 662,011	$ 675,199	$ 593,529
3	Unmetered Water Revenues	-	-	-
4	Other Water Revenues	8,436	10,034	8,164
5		$ 670,447	$ 685,233	$ 601,693
6	**Operating Expenses**			
7	Salaries and Wages	$ 125,296	$ 103,920	$ 100,771
8	Pension & Benefits	6,105	5,888	8,859
9	Purchased Water	103,532	85,556	39,183
10	Purchased Power	36,942	28,399	35,513
11	Chemicals	604	-	3,571
12	Materials & Supplies	59,423	4,447	11,202
13	Regulatory Water Testing	7,758	8,987	1,325
14	Contractual Services - Engineering	-	4,294	-
15	Contractual Services - Accounting	38,328	29,304	5,164
16	Contractual Services - Legal	104,161	87,682	7,448
17	Contractual Services - Other	19,368	7,797	8,000
18	Overhead Allocation - G&A	71,092	80,593	121,460
19	Rental of Equipment	-	582	7,025
20	Transportation Expenses	176,144	267,780	132,732
21	Worker's Comp	2,271	1,766	1,480
22	Insurances Medical/Dental	12,663	8,117	8,113
23	Telephone	2,631	3,870	4,656
24	Dues & Subscriptions	299	369	-
25	Bad Debt Expense	2,153	3,319	(978)
26	Misc Expenses	202	39	346
27	Office Supplies	-	152	197
28	Licenses & Permits	1,000	1,046	111
29	Repairs & Maintenance - Bldg	-	12	59
30	R&M Vehicles	-	20	
31	Sales Tax Expense	41,363	40,895	34,676
32	Utiltiy Reg. Assess. Fee	272	259	1,296
33	CAWCD Costs	21,501	22,386	23,926
34	Depreciation Expense	23,254	21,908	24,559
35	Other Taxes and Licenses	45	45	45
36	Property Taxes	51,177	43,592	42,282
37	Income Tax	-	-	-
38				
39	**Total Operating Expenses**	$ 907,584	$ 863,026	$ 623,020
40	**Operating Income**	$ (237,137)	$ (177,793)	$ (21,328)
41	**Other Income (Expense)**			
42	Interest Income	-	-	209
43	Other income	408	23	-
44	Income Tax Provision	-	-	494,500
45	Interest Expense	(7,694)	(8,925)	(7,127)
46	Other Expense	-	-	-
47	Gain/Loss Sale of Fixed Assets		-	-
48	**Total Other Income (Expense)**	$ (7,287)	$ (8,902)	$ 487,582
49	**Net Profit (Loss)**	$ (244,423)	$ (186,695)	$ 466,254
50				
51				
52	SUPPORTING SCHEDULES:		RECAP SCHEDULES:	
53				
54				

Pine Water Company
Test Year Ended December 31, 2002
Comparative Statements of Cash Flows

Exhibit
Schedule E-3
Page 1
Witness: Bourassa

Line No.		Test Year Ended 12/31/02	Prior Year Ended 12/31/01	Prior Year Ended 12/31/00
1				
2				
3	Cash Flows from Operating Activities			
4	Net Income	$ (244,424)	$ (186,695)	$ 466,254
5	Adjustments to reconcile net income to net cash			
6	provided by operating activities:			
7	Depreciation and Amortization	23,254	21,908	24,559
8	Deferred Income Taxes	-	-	-
9	Accumulated Deferred ITC	-	-	-
10	Changes in Certain Assets and Liabilities:			
11	Accounts Receivable	1,663	(4,703)	(1,944)
12	Materials and Supplies Inventory	-	-	-
13	Prepaid Expenses	810	810	9,530
14	Misc Current Assets and Deferred Expense	-	-	(498,225)
15	Accounts Payable and Accrued Liabilities	290,044	220,511	(270,406)
16	Accrued Taxes	-	-	-
17	Net Cash Flow provided by Operating Activities	$ 71,347	$ 51,831	$ (270,232)
18	Cash Flow From Investing Activities:			
19	Capital Expenditures	(67,587)	(35,129)	(20,701)
20	Plant Held for Future Use	-	-	-
21	Non-Utility Property	-	-	-
22	Net Cash Flows from Investing Activities	$ (67,587)	$ (35,129)	$ (20,701)
23	Cash Flow From Financing Activities			
24	(Decrease) Increase in Net Amounts due to Parent and			
25	Affiliates	-	-	-
26	Customer Deposits	946	4,702	625
27	Changes in Advances for Construction	15,108	(3,490)	28,364
28	Changes in Contributions for Construction	-	-	-
29	Net Proceeds from Long-Term Debt Borrowing	-	-	261,944
30	Repayments of Long-Term Debt	(19,814)	(17,914)	-
31	Dividends Paid	-	-	-
32	Deferred Financing Costs	-	-	-
33	Paid in Capital	-	-	-
34	Net Cash Flows Provided by Financing Activities	$ (3,760)	$ (16,702)	$ 290,933
35	Increase(decrease) in Cash and Cash Equivalents	-	-	-
36	Cash and Cash Equivalents at Beginning of Year	-	-	-
37	Cash and Cash Equivalents at End of Year	$ -	$ -	$ -
38				
39				
40	SUPPORTING SCHEDULES:		RECAP SCHEDULES:	
41				
42				
43				

Test Year Ended December 31, 2002
Statement of Changes in Stockholder's Equity

Schedule E-4
Page 1
Witness: Bourassa

Line No.		Common Stock	Additional Paid-In-Capital	Retained Earnings	Total
1					
2					
3					
4	Balance, December 31, 2000	321,823	584,935	(628,637)	278,121
5					
6	Net Income	-	-	(186,695)	(186,695)
7					
8	Balance, December 3, 2001	321,823	584,935	-	91,426
9					
10	Net Income	-	-	(244,423)	(244,423)
11					
12	Balance, December 31, 2002	$ 321,823	$ 584,935	$ (244,423)	$ (152,997)
13					
14	SUPPORTING SCHEDULES:			RECAP SCHEDULES:	
15					
16					
17					

Pine Water Company
Test Year Ended December 31, 2002
Detail of Plant in Service

Exhibit
Schedule E-5
Page 1
Witness: Bourassa

Line No.	Acct. No.	Plant Description	Plant Balance at 12/31/01	Plant Additions, Reclass-ications or or Retirements	Plant Balance at 12/31/02
1					
2	301	Organization	$ -	$ -	$ -
3	302	Franchises	-	-	-
4	303	Land and Land Rights	16,930	-	16,930
5	304	Structures and Improvements	160,067	-	160,067
6	305	Collecting and Impounding Rese	-	-	-
7	306	Lake, River and Other Intakes	-	-	-
8	307	Wells and Springs	65,994	-	65,994
9	308	Infiltration Galleries and Tun	-	-	-
10	309	Supply Mains	479	-	479
11	310	Power Generation Equipment	-	-	-
12	311	Pumping Equipment	123,060	8,233	131,293
13	320	Water Treatment Equipment	3,810	1,510	5,320
14	330	Distribution Reservoirs and St	247,073	-	247,073
15	331	Transmission and Distribution	988,892	1,399	990,291
16	333	Services	80,461	-	80,461
17	334	Meters and Meter Installations	137,242	56,446	193,687
18	335	Hydrants	-	-	-
19	336	Backflow Prevention Devices	-	-	-
20	339	Other Plant and Miscellaneous	-	-	-
21	340	Office Furniture and Equipment	-	-	-
22	341	Transportation Equipment	-	-	-
23	342	Stores Equipment	-	-	-
24	343	Tools, Shop and Garage Equipme	-	-	-
25	344	Laboratory Equipment	-	-	-
26	345	Power Operated Equipment	-	-	-
27	346	Communication Equipment	-	-	-
28	347	Miscellaneous Equipment	-	-	-
29	348	Other Tangible Plant	-	-	-
30	348	Other Tangible Plant	-	-	-
31					
32					
33					
34		TOTAL WATER PLANT	$ 1,824,007	$ 67,588	$ 1,891,594
35					
36		SUPPORTING SCHEDULES		RECAP SCHEDULES:	
37				A-4	
38				E-1	
39					

Pine Water Company
Test Year Ended December 31, 2002
Operating Statistics

Exhibit
Schedule E-7
Page 1
Witness: Bourassa

Line No.		Test Year Ended 12/31/02	Prior Year Ended 12/31/01	Prior Year Ended 12/31/00
1	WATER STATISTICS:			
2				
3				
4				
5	Total Gallons Sold (in Thousands)	52,006	52,256	42,344
6				
7				
8				
9	Water Revenues from Customer:	$ 662,011	$ 675,199	$ 593,529
10				
11				
12				
13				
14	Year End Number of Customers	1,887	1,839	1,833
15				
16				
17	Annual Gallons (in Thousands)			
18	Sold Per Year End Customer	27.56	28.42	23.10
19				
20				
21				
22	Annual Revenue per Year End Customer	$ 350.83	$ 367.16	$ 323.80
23				
24	Pumping Cost Per 1,000 Gallons	$ 0.7103	$ 0.5435	$ 0.8387
25	Purchased Water Cost per 1,000 Gallons	$ 1.9908	$ 1.6372	$ 0.9254
26				
27				
28				

Pine Water Company
Test Year Ended December 31, 2002
Taxes Charged to Operations

Exhibit
Schedule E-8
Page 1
Witness: Bourassa

Line No.	Description	Test Year Ended 12/31/02	Prior Year Ended 12/31/01	Prior Year Ended 12/31/00
1				
2				
3	Federal Income Taxes *	$ -	$ -	$ -
4	State Income Taxes *	-	-	-
5	Payroll Taxes *	9,170	7,605	7,375
6	Property Taxes **	51,177	43,592	42,282
7				
8	Totals	$ 60,347	$ 51,197	$ 49,657
9				
10				
11	*Computed			
12	**Source: ACC Annual Reports			
13				
14				

Pine Water Company
Test Year Ended December 31, 2002
Notes To Financial Statements

Exhibit
Schedule E-9
Page 1
Witness: Bourassa

Line No.	
1	**The Company does not prepare audited financial statements.**
2	
3	1. The Company follows the NARUC system of accounts.
4	2. The Company uses the accrual method of accounting.
5	3. The Company uses the depreciation lives and methods as approved in
6	prior Commission order.
7	4. The Company follows the normalized method for accounting for
8	income taxes and uses the allowed tax depreciation lives and methods
9	for determining income taxes.
10	
11	
12	
13	
14	
15	
16	
17	
18	

Pine Water Company
Test Year Ended December 31, 2002
Projected Income Statements - Present & Proposed Rates

Exhibit
Schedule F-1
Page 1
Witness: Bourassa

Line No.		Test Year Actual Results	At Present Rates Year Ended 12/31/03	At Proposed Rates Year Ended 12/31/03
1	**Revenues**			
2	Metered Water Revenues	$ 662,011	$ 645,612	$ 914,623
3	Unmetered Water Revenues	-	-	-
4	Other Water Revenues	8,436	8,436	8,436
5		$ 670,447	$ 654,048	$ 923,059
6	**Operating Expenses**			
7	Salaries and Wages	$ 125,296	$ 125,296	$ 125,296
8	Pension & Benefits	6,105	6,105	6,105
9	Purchased Water	103,532	64,262	64,262
10	Purchased Power	36,942	36,942	36,942
11	Chemicals	604	604	604
12	Materials & Supplies	59,423	42,923	42,923
13	Regulatory Water Testing	7,758	7,758	7,758
14	Contractual Services - Engineering	-	-	-
15	Contractual Services - Accounting	38,328	38,328	38,328
16	Contractual Services - Legal	104,161	66,430	66,430
17	Contractual Services - Other	19,368	19,368	19,368
18	Overhead Allocation - G&A	71,092	71,092	71,092
19	Rental of Equipment	-	-	-
20	Transportation Expenses	176,144	176,144	176,144
21	Worker's Comp	2,271	2,271	2,271
22	Insurances Medical/Dental	12,663	12,663	12,663
23	Telephone	2,631	2,631	2,631
24	Dues & Subscriptions	299	299	299
25	Bad Debt Expense	2,153	2,153	2,153
26	Misc Expenses	202	202	202
27	Office Supplies	-	4,080	4,080
28	Licenses & Permits	1,000	1,000	1,000
29	Repairs & Maintenance - Bldg	-	-	-
30	R&M Vehicles	-	-	-
31	Sales Tax Expense	41,363	(380)	(380)
32	Utiltiy Reg. Assess. Fee	272	272	272
33	CAWCD Costs	21,501	21,501	21,501
34	Rate Case Expense	-	50,000	50,000
35	Depreciation Expense	23,254	35,496	35,496
36	Other Taxes and Licenses	45	45	45
37	Property Taxes	51,177	45,239	45,239
38	Income Tax	-	(45,951)	16,010
39				
40				
41	**Total Operating Expenses**	$ 907,584	$ 786,774	$ 848,735
42	**Operating Income**	$ (237,137)	$ (132,727)	$ 74,324
43	**Other Income (Expense)**			
44	Interest Income	-	-	-
45	Other income	408	-	-
46	Interest Expense	(7,694)	(20,824)	(20,824)
47	Other Expense	-	-	-
48	Gain/Loss Sale of Fixed Assets	-	-	-
49	**Total Other Income (Expense)**	$ (7,287)	$ (20,824)	$ (20,824)
50	**Net Profit (Loss)**	$ (244,423)	$ (153,551)	$ 53,500
51				

Pine Water Company
Test Year Ended December 31, 2002
Projected Statements of Changes in Financial Position
Present and Proposed Rates

Exhibit
Schedule F-2
Page 1
Witness: Bourassa

Line No.		Test Year Ended 12/31/02	At Present Rates Year Ended 12/31/03	At Proposed Rates Year Ended 12/31/03
1				
2				
3				
4				
5	Cash Flows from Operating Activities			
6	Net Income	$ (244,424)	$ (153,551)	$ 53,500
7	Adjustments to reconcile net income to net cash			
8	provided by operating activities:			
9	Depreciation and Amortization	23,254	35,496	35,496
10	Deferred Income Taxes	-		
11	Accumulated Deferred ITC	-		
12	Changes in Certain Assests and Liabilities:	-		
13	Accounts Receivable	1,663		
14	Materials & Supplies	-		
15	Prepaid Expenses	810		
16	Misc Current Assets and Deferred Expense	-		
17	Accounts Payable and Accrued Liabilities	290,044	37,515	37,515
18	Accrued Taxes	-		
19	Net Cash Flow provided by Operating Activities	$ 71,347	$ (80,540)	$ 126,511
20	Cash Flow From Investing Activities:			
21	Capital Expenditures	(67,587)	(75,435)	(75,435)
22	Plant Held for Future Use	-		
23	Non-Utility Property	-		
24	Net Cash Flows from Investing Activities	$ (67,587)	$ (75,435)	$ (75,435)
25	Cash Flow From Financing Activities			
26	(Decrease) Increase in Net Amounts due to Parent and		(533,599)	(533,599)
27	Affiliates	-		
28	Customer Deposits	946		
29	Changes in Advances for Construction	15,108	-	-
30	Changes in Contributions for Construction	-		
31	Proceeds from Long-Term Debt Borrowing		178,000	178,000
32	Repayments of Long-Term Debt	(19,814)	(51,076)	(51,076)
33	Dividends Paid	-		
	Deferred Financing Costs			
34	Proceeds from Additional Paid-in-Capital	-	355,599	355,599
35	Net Cash Flows Provided by Financing Activities	$ (3,760)	$ (51,076)	$ (51,076)
36	Increase(decrease) in Cash and Cash Equivalents	$ -	$ (207,051)	$ (0)
37	Cash and Cash Equivalents at Beginning of Year	-	-	-
38	Cash and Cash Equivalents at End of Year	$ -	$ (207,051)	$ (0)
39				
40				
41	SUPPORTING SCHEDULES:			
42	E-3			
43	F-3			
44				
45				

Pine Water Company
Test Year Ended December 31, 2002
Projected Construction Requirements

Exhibit
Schedule F-3
Page 1
Witness: Bourassa

Line No.	Account Number	Plant Asset:	Thru 12/31/03	TO BE DETERMINED 2004	2005	2006
1						
2						
3						
4	301	Organization Cost				
5	302	Franchise Cost				
6	303	Land and Land Rights				
7	304	Structures and Improvements				
8	305	Collecting & Impounding Resrvoirs				
9	306	Lake, River and Other Intakes				
10	307	Wells and Springs	17,100			
11	310	Power Generation Equipment				
12	311	Electric Pumping Equipment	20,335			
13	320	Water Treatment Equipment				
14	330	Distribution Reservoirs & Standpipe				
15	331	Transmission and Distribution Mains	8,000			
16	333	Services				
17	334	Meters	30,000			
18	335	Hydrants				
19	339	Plant Structures and Improvements				
20	340	Office Furniture and Fixtures				
21	341	Transportation Equipment				
22	343	Tools and Work Equipment				
23	344	Power Operated Equipment				
24	345	Communications Equipment				
25	346	Miscellaneous Equipment				
26	348	Other Tangible Plant				
27						
28	Total		$ 75,435	$ -	$ -	$ -
29						
30						
31						

Pine Water Company
Test Year Ended December 31, 2002
Assumptions Used in Rate Filing

Exhibit
Schedule F-4
Page 1
Witness: Bourassa

Line No.	
1	Property Taxes were computed using the method used by the Arizona Department
2	of Revenue
3	
4	Projected construction expenditures are shown on Schedule A-4.
5	
6	Expense adjustments are shown on Schedule C2, and are explained in the testimony.
7	
8	Accumulated depreciation and depreciation expense were computed at Arizona Corporation
9	Commission allowed rated in Prior Commission Decision. Adjusted test year depreciation
10	depreciation computed using proposed depreciation rates.
11	
12	Income taxes were computed using statutory state and federal income tax rates.
13	
14	
15	
16	

Pine Water Company
Revenue Summary
With Annualized Revenues to Year End Number of Customers
Test Year Ended December 31, 2002

Exhibit
Schedule H-1
Page 1
Witness: Bourassa

Line No.	Meter Size	Customer Classification	Present Revenues	Proposed Revenues	Dollar Change	Percent Change	Percent of Present Water Revenues	Percent of Proposed Water Revenues
1	5/8 Inch	Residential 14A	$ 507,049	$ 716,376	$ 209,327	41.28%	78.52%	78.33%
2	5/8 Inch	Residential 14B	119,446	164,623	45,177	37.82%	18.50%	18.00%
3								
4	3/4 Inch	Residential 14B	468	832	364	77.78%	0.07%	0.09%
5	1 Inch	Residential 14A	4,441	8,207	3,766	84.81%	0.69%	0.90%
6	2 Inch	Residential 14A	194	531	338	174.26%	0.03%	0.06%
7								
8								
9	5/8 Inch	Commercial 14A	2,003	3,698	1,695	84.64%	0.31%	0.40%
10	1 Inch	Commercial 14A	2,647	4,473	1,826	68.97%	0.41%	0.49%
11	2 Inch	Commercial 14A	5,977	11,347	5,370	89.84%	0.93%	1.24%
12								
13								
14								
15	**Total Water Revenues**		$ 642,224	$ 910,087	$ 267,863	41.71%	99.45%	99.51%
16								
17								
18	**Revenue Annualization (a)**							
19	5/8 Inch	Residential 14A	$ 3,539	$ 4,460	922	26.04%	0.55%	0.49%
20								
21								
22								
23								
24	**Total Revenue Annualization**		3,539	4,460	922	26.04%	0.55%	0.49%
25	**Total Water Revenues with**							
26	**Revenue Annualization**		$ 645,763	$ 914,548	$ 268,785		100.00%	100.00%
27								
28								
29	(a) Customer Growth Annualization is not calculated. Change in customers is not due to growth.							
30								
31								

Pine Water Company
Analysis of Revenue by Detailed Class
Test Year Ended December 31, 2002

Exhibit
Schedule H-2
Page 1
Witness: Bourassa

Line No.	Customer Classification and/or Meter Size		(a) Average Number of Customers at 12/31/02	Summer Average Consumption	Summer Revenues Present Rates	Summer Revenues Proposed Rates	Summer Proposed Increase Dollar Amount	Summer Proposed Increase Percent Amount	Winter Average Consumption	Winter Revenues Present Rates	Winter Revenues Proposed Rates	Winter Proposed Increase Dollar Amount	Winter Proposed Increase Percent Amount
1	5/8 Inch	Residential 14A	1,502	2,731	$ 27.74	$ 41.15	13.42	48.37%	1,998	$ 25.24	$ 30.70	5.46	21.61%
2	5/8 Inch	Residential 14B	360	2,614	29.50	39.96	10.46	35.47%	1,707	26.32	29.45	3.13	11.88%
3													
4	3/4 Inch	Residential 14B	1	4,901	38.37	74.23	35.86	93.45%	5,215	39.47	65.88	26.41	66.90%
5	1 Inch	Residential 14A	2	31,834	203.75	362.15	158.40	77.74%	28,836	185.91	254.74	68.83	37.02%
6	2 Inch	Residential 14A	0	-	64.58	177.12	112.54	174.26%	-	64.58	177.12	112.54	174.26%
7													
8													
9	5/8 Inch	Commercial 14A	2	14,750	96.02	190.09	94.07	97.97%	9,786	66.48	96.23	29.75	44.75%
10	1 Inch	Commercial 14A	1	44,901	281.50	546.98	265.48	94.31%	27,358	177.12	237.75	60.63	34.23%
11	2 Inch	Commercial 14A	2	38,801	285.24	582.47	297.22	104.20%	28,358	223.11	371.02	147.91	66.30%
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30		Totals	1,871										
31													
32		Actuall Year End Number											
33		of Customers:	1,884										
34													
35		**(a)** Average number of customers of less than one (1), indicates that less than 12 bills were issued during the year.											
36													
37													

Pine Water Company
Customer Count Summary
Test Year Ended December 31, 2002

Exhibit
Schedule H-2
Page 2
Witness: Bourassa

Size	Meter Classification	Month of Jan-02	Month of Feb-02	Month of Mar-02	Month of Apr-02	Month of May-02	Month of Jun-02	Month of Jul-02
5/8 Inch	Residential 14A	1,478	1,479	1,482	1,491	1,497	1,508	1,515
5/8 Inch	Residential 14B	360	359	358	358	357	359	361
3/4 Inch	Residential 14B	1	1	1	1	1	1	1
1 Inch	Residential 14A	1	1	1	1	1	2	2
2 Inch	Residential 14A	-	-	-	-	1	1	1
5/8 Inch	Commercial 14A	2	2	2	2	2	2	2
1 Inch	Commercial 14A	1	1	1	1	1	1	1
2 Inch	Commercial 14A	2	2	2	2	2	2	2
	Totals	1,845	1,845	1,847	1,856	1,862	1,876	1,885

Size	Meter Classification	Month of Aug-02	Month of Sep-02	Month of Oct-02	Month of Nov-02	Month of Dec-02	Change from Beginning of Year to	Revenues Annual-ized
5/8 Inch	Residential 14A	1,517	1,514	1,523	1,509	1,514	36	Yes
5/8 Inch	Residential 14B	362	360	364	361	361	1	No
3/4 Inch	Residential 14B	1	1	1	1	1	-	No
1 Inch	Residential 14A	3	3	3	3	3	2	No
2 Inch	Residential 14A	-	-	-	-	-	-	No
		-	-	-	-	-	-	
		-	-	-	-	-	-	
5/8 Inch	Commercial 14A	2	2	2	2	2	-	No
1 Inch	Commercial 14A	1	1	1	1	1	-	No
2 Inch	Commercial 14A	2	2	2	2	2	-	No
	Totals	1,888	1,883	1,896	1,879	1,884	39	

Pine Water Company
Gallons Sold Summary
Test Year Ended December 31, 2002

Exhibit
Schedule H-2
Page 3
Witness: Bourassa

Size	Meter Classification	Month of Jan-02	Month of Feb-02	Month of Mar-02	Month of Apr-02	Month of May-02	Month of Jun-02	Month of Jul-02
5/8 Inch	Residential 14A	2,680	2,706	2,530	3,064	4,123	4,923	3,867
5/8 Inch	Residential 14B	459	501	444	566	812	1,185	1,056
3/4 Inch	Residential 14B	5	7	5	7	5	6	5
1 Inch	Residential 14A	2	149	-	2	9	68	98
2 Inch	Residential 14A	-	-	-	-	-	-	-
5/8 Inch	Commercial 14A	9	16	25	22	1	56	29
1 Inch	Commercial 14A	19	30	24	39	35	37	52
2 Inch	Commercial 14A	68	60	58	36	55	68	77
	Actual Gallons Sold (1,000's)	3,241	3,467	3,085	3,734	5,037	6,342	5,183

Size	Meter Classification	Month of Aug-02	Month of Sep-02	Month of Oct-02	Month of Nov-02	Month of Dec-02	Total Year	Percent of Total Water Usage
5/8 Inch	Residential 14A	3,687	4,019	3,721	3,239	3,016	41,572	78.72%
5/8 Inch	Residential 14B	681	968	974	755	610	9,010	17.06%
0	0	-	-	-	-	-	-	0.00%
3/4 Inch	Residential 14B	5	6	5	6	5	61	0.12%
1 Inch	Residential 14A	98	106	66	48	38	680	1.29%
2 Inch	Residential 14A	-	-	-	-	-	-	0.00%
5/8 Inch	Commercial 14A	34	28	25	21	19	285	0.54%
1 Inch	Commercial 14A	49	54	30	38	15	416	0.79%
2 Inch	Commercial 14A	153	35	75	48	52	785	1.49%
	Actual Gallons Sold (1,000's)	4,706	5,214	4,894	4,153	3,753	52,808	100%

Pine Water Company
Present and Proposed Rates
Test Year Ended December 31, 2002

Exhibit
Schedule H-3
Page 1
Witness: Bourassa

Line No.	Customer Classification and Meter Size	Present Rates	Proposed Rates	Percent Change
1				
2				
3				
4	Rate Code Sheet 14A			
5	**Monthly Usage Charge for:**			
6	Residential,Commercial			
7	5/8 x 3/4 Inch	$ 18.45	$ 22.14	20.00%
8	3/4 Inch	21.22	33.21	56.50%
9	1 Inch	24.54	55.35	125.55%
10	1 1/2 Inch	36.90	110.70	200.00%
11	2 Inch	64.58	177.12	174.26%
12	3 Inch	92.25	354.24	284.00%
13	4 Inch	147.60	553.50	275.00%
14	6 Inch	-	1,107.00	0.00%
15	8 Inch	-	2,214.00	0.00%
16				
17	Rate Code Sheet 14B			
18	**Monthly Usage Charge for:**			
19	Residential,Commercial			
20	5/8 x 3/4 Inch	$ 20.35	$ 22.14	8.80%
21	3/4 Inch	30.53	33.21	8.78%
22	1 Inch	50.88	55.35	8.79%
23	1 1/2 Inch	101.75	110.70	8.80%
24	2 Inch	162.80	177.12	8.80%
25	3 Inch	305.25	354.24	16.05%
26	4 Inch	508.75	553.50	8.80%
27	6 Inch	1,017.50	1,107.00	8.80%
28	8 Inch	-	2,214.00	0.00%
29				
30				
31		**Present**	**Proposed**	
32		**Rates**	**Rates**	
33	Rate Code Sheet 14A			
34	Gallons In Minimum			
35	All	-	-	
36				
37				
38	Rate Code Sheet 14B			
39	Gallons In Minimum			
40	All	-	-	
41				
42				
43				
44	Rate Code Sheet 14A			
45	**Tier 1:** Gallons upper limit (over 0 gallons (Present), **0 Gallons Proposed**, but not over stated amount			
46	5/8 Inch Residential and Commercial	4,000	2,000	
47	1 Inch and Larger Residential and Commercial	4,000	10,000	
48				
49				
50	Rate Code Sheet 14B			
51	**Tier 1:** Gallons upper limit (over 0 gallons (Present), **0 Gallons Proposed**, but not over stated amount			
52	5/8 Inch Residential and Commercial	999,999,999	2,000	
53	1 Inch and Larger Residential and Commercial	999,999,999	10,000	
54				
55				

Pine Water Company
Present and Proposed Rates
Test Year Ended December 31, 2002

Exhibit
Schedule H-3
Page 2
Witness: Bourassa

Line No.	Customer Classification and Meter Size	Present Rates	Summer Proposed Rates
1			
2	Rate Code Sheet 14A		
3	**Tier 2:** (Gallon upper limit, up to, but not exceeding)		
4	5/8 Inch Residential and Commercial	999,999,999	8,000
5	1 Inch and Larger Residential and Commercial	999,999,999	25,000
6			
7			
8	Rate Code Sheet 14B		
9	**Tier 2:** (Gallon upper limit, up to, but not exceeding)		
10	5/8 Inch Residential and Commercial	999,999,999	8,000
11	1 Inch and Larger Residential and Commercial	999,999,999	25,000
12			
13			
14	Rate Code Sheet 14A		
15	**Tier 3:** (Gallon over)		
16	5/8 Inch Residential and Commercial	999,999,999	999,999,999
17	1 Inch and Larger Residential and Commercial	999,999,999	999,999,999
18			
19			
20	Rate Code Sheet 14B		
21	**Tier 3:** (Gallon over)		
22	5/8 Inch Residential and Commercial	999,999,999	999,999,999
23	1 Inch and Larger Residential and Commercial	999,999,999	999,999,999
24			
25			

			Present Rates	Summer* Proposed Rates	Winter* Proposed Rates
26					
27					
28					
29	Rate Code Sheet 14A				
30	Commodity Rates (per 1,000 gallons over minimum and per Tier) **(A)**				
31	All	Tier 1	$ 3.40	$ 5.80	$ 4.28
32	All	Tier 2	5.95	10.14	7.50
33	All	Tier 3	5.95	14.14	11.50
34	All	Tier 4	5.95	14.14	11.50
35					
36					
37	Rate Code Sheet 14B				
38	Commodity Rates (per 1,000 gallons over minimum and per Tier)				
39	All	Tier 1	$ 3.50	$ 5.80	$ 4.28
40	All	Tier 2	3.50	10.14	7.50
41	All	Tier 3	3.50	14.14	11.50
42	All	Tier 4	3.50	14.14	11.50
43					
44	* Summer Months (May, June, July, August, September)				
45	Winter Months (October, November, December, January, February, March, April)				
46					
47					
48					
49					
50					
51					
52					
53					
54					

Pine Water Company
Changes in Representative Rate Schedules
Test Year Ended December 31, 2002

Exhibit
Schedule H-3
Page 3
Witness: Bourassa

Line No.	Other Service Charges	Rate Code Sheet A Present Rates	Rate Code Sheet B Present Rates	Proposed Rates
1	Establishment	$ 25.00	$ 25.00	$ 25.00
2	Establishment (After Hours)	$ 35.00	$ 35.00	$ 35.00
3	Reconnection (Deliquent)	$ 20.00	$ 35.00	$ 50.00
4	Reconnection (After Hours)	$ 30.00	$ 45.00	$ 45.00
5	Meter Test	$ 25.00	$ 25.00	$ 25.00
6	Deposit	**	**	
7	Deposit Interest	6.00%	6.00%	6.00%
8	Re-Establishment (With-in 12 Months)	***		
9	NSF Check	$ 10.00	$ 10.00	$ 10.00
10	Deferred Payment, Per Month **(b)**			
11	Meter Re-Read	$ 15.00	$ 15.00	$ 15.00
12	Charge of Moving Customer Meter -			
13	Customer Requested	Cost	Cost	Cost
14	Late Payment Charge, greater of 1.50% or	$ 5.00	$ 10.00	(1)
15	Cut Lock Fee			$ 50.00
16	Meter Removal Fee			$ 150.00
17	Illegal Supply Fee			
18	First Offense			$ 500.00
19	Second Offense			$ 1,000.00
20	Third Offense			$ 2,000.00
21	Water Theft Fee			
22	First Offense			$ 250.00
23	Second Offense			$ 500.00
24	Third Offense			$ 750.00
25	Emmergency Conservation Response Fee			$ 100.00
26	Cross Connection Exposure Fee			$ 100.00
27				
28	Sprinklers			(a)

29 (1) Greater of 1.50% or $5.00 Present Rates or 1.5% or $10.00 Proposed Rates.
30 (2) $40.00 plus actual cost of making repairs.
31 ** PER COMMISSION RULES (R14-2-403.B)
32 *** MONTHS OFF SYSTEM TIMES MINIMUM (R14-2-403.D)
33
34 IN ADDITION TO THE COLLECTION OF REGULAR RATES, THE UTILITY WILL COLLECT FROM
35 ITS CUSTOMERS A PROPORTIONATE SHARE OF ANY PRIVILEGE, SALES, USE, AND FRANCHISE
36 TAX. PER COMMISSION RULE (14-2-409.D 5)
37 ALL ADVANCES AND/OR CONTRIBUTIONS ARE TO INCLUDE LABOR, MATERIALS, OVERHEADS,
38 AND ALL APPLICABLE TAXES, INCLUDING ALL GROSS-UP TAXES FOR INCOME TAXES.
39 (a) 1.50% of the monthly minimum for a comparable sized meter connection, but no less than $5 per month
40
41 Service Line and
42 Meter Installation Proposed
43 Rate Code Rate Code
44 Meter Size Sheet A Sheet B Charges(*)
45 5/8 x 3/4 Inch $430 $430 $430
46 3 / 4 Inch $480 $480 $480
47 1 Inch $550 $550 $550
48 1 1/2 Inch $775 $775 $775
49 2 Inch $1,305 $1,305 $1,305
50 3 Inch $1,815 $1,815 $1,815
51 4 Inch $2,860 $2,860 $2,860
52 6 Inch N/A $5,275 $5,275
53 8 Inch Cost Cost Cost
54 Meters Larger than 8" Cost Cost Cost
55
56 (*) For Compound Meters
57 Plus Actual Cost of Road Crossing Costs
58 As meters and service lines are now taxable income for income purposes, it shall be the at the
59 discrestion of the utility whether to collect income taxes on the meter and service line charges.
60 Any tax collected will be refunded each year that the meter deposit is refunded.
61

Pine Water Company
Changes in Representative Rate Schedules
Test Year Ended December 31, 2002

Exhibit
Schedule H-3
Page 4
Witness: Bourassa

Line No.		
1		
2	Water Exploration Surcharge, per month	$ 10.00
3		
4	Water Hauling Surcharge (1)	Cost
5		
6		
7		
8		
9		
10		
11		
12		
13	(1) Per gallon rate calculated by dividing actual hauling costs less curtailment	
14	penalty fees collected by the total gallons sold for te month.	
15	Customer bill amount will be calculated by multiplying the gallons used	
16	for the month times the per gallon rate. Customers will be billed	
17	in the month following actual costs incurred.	
18		

Pine Water Company
Bill Comparison
Customer Classification — 5/8 Inch Residential - 14A
Summer Present and Proposed

Exhibit
Schedule H-4
Page 1
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 18.45	$ 22.14	$ 3.69	20.00%
1,000	21.85	27.94	$ 6.09	27.86%
2,000	25.25	33.73	$ 8.48	33.60%
3,000	28.65	43.88	$ 15.23	53.15%
4,000	32.05	54.02	$ 21.97	68.56%
5,000	38.00	64.17	$ 26.17	68.86%
6,000	43.95	74.31	$ 30.36	69.09%
7,000	49.90	84.46	$ 34.56	69.25%
8,000	55.85	94.60	$ 38.75	69.39%
9,000	61.80	108.75	$ 46.95	75.97%
10,000	67.75	122.89	$ 55.14	81.39%
11,000	73.70	137.04	$ 63.34	85.94%
12,000	79.65	151.18	$ 71.53	89.81%
13,000	85.60	165.33	$ 79.73	93.14%
14,000	91.55	179.47	$ 87.92	96.04%
15,000	97.50	193.62	$ 96.12	98.58%
16,000	103.45	207.76	$ 104.31	100.83%
17,000	109.40	221.91	$ 112.51	102.84%
18,000	115.35	236.05	$ 120.70	104.64%
19,000	121.30	250.19	$ 128.89	106.26%
20,000	127.25	264.34	$ 137.09	107.73%
25,000	157.00	335.06	$ 178.06	113.42%
30,000	186.75	405.79	$ 219.04	117.29%
35,000	216.50	476.51	$ 260.01	120.10%
40,000	246.25	547.23	$ 300.98	122.23%
45,000	276.00	617.96	$ 341.96	123.90%
50,000	305.75	688.68	$ 382.93	125.24%
60,000	365.25	830.13	$ 464.88	127.28%
70,000	424.75	971.58	$ 546.83	128.74%
80,000	484.25	1,113.02	$ 628.77	129.85%
90,000	543.75	1,254.47	$ 710.72	130.71%
100,000	603.25	1,395.92	$ 792.67	131.40%
Average Usage				
2,731	$ 27.74	$ 41.15	$ 13.42	48.37%

Present Rates:

Monthly Minimum:		$ 18.45
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		$ 22.14
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	2,000	$ 5.80
Up to	8,000	$ 10.14
Up to	999,999,999	$ 14.14
Over	1,000,000,000	$ 14.14

Pine Water Company
Bill Comparison
Customer Classification 5/8 Inch Residential - 14A
Winter Present and Proposed

Exhibit
Schedule H-4
Page 1a
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 18.45	$ 22.14	$ 3.69	20.00%
1,000	21.85	26.42	$ 4.57	20.93%
2,000	25.25	30.71	$ 5.46	21.62%
3,000	28.65	38.21	$ 9.56	33.35%
4,000	32.05	45.70	$ 13.65	42.60%
5,000	38.00	53.20	$ 15.20	40.00%
6,000	43.95	60.70	$ 16.75	38.10%
7,000	49.90	68.19	$ 18.29	36.66%
8,000	55.85	75.69	$ 19.84	35.52%
9,000	61.80	87.19	$ 25.39	41.08%
10,000	67.75	98.68	$ 30.93	45.66%
11,000	73.70	110.18	$ 36.48	49.50%
12,000	79.65	121.68	$ 42.03	52.77%
13,000	85.60	133.18	$ 47.58	55.58%
14,000	91.55	144.67	$ 53.12	58.03%
15,000	97.50	156.17	$ 58.67	60.17%
16,000	103.45	167.67	$ 64.22	62.07%
17,000	109.40	179.16	$ 69.76	63.77%
18,000	115.35	190.66	$ 75.31	65.29%
19,000	121.30	202.16	$ 80.86	66.66%
20,000	127.25	213.65	$ 86.40	67.90%
25,000	157.00	271.14	$ 114.14	72.70%
30,000	186.75	328.62	$ 141.87	75.97%
35,000	216.50	386.11	$ 169.61	78.34%
40,000	246.25	443.59	$ 197.34	80.14%
45,000	276.00	501.08	$ 225.08	81.55%
50,000	305.75	558.56	$ 252.81	82.69%
60,000	365.25	673.53	$ 308.28	84.40%
70,000	424.75	788.50	$ 363.75	85.64%
80,000	484.25	903.47	$ 419.22	86.57%
90,000	543.75	1,018.44	$ 474.69	87.30%
####	603.25	1,133.41	$ 530.16	87.88%
Average Usage				
1,998	$ 25.24	30.70	$ 5.46	21.61%

Present Rates:

Monthly Minimum:		$ 18.45
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		22.14
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	2,000	$ 4.28
Up to	8,000	$ 7.50
Up to	999,999,999	$ 11.50
Over	1,000,000,000	$ 11.50

Pine Water Company
Bill Comparison
Customer Classification — 5/8 Inch Residential - 14B
Summer Present and Proposed

Exhibit
Schedule H-4
Page 2
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 20.35	$ 22.14	$ 1.79	8.80%
1,000	23.85	27.94	$ 4.09	17.14%
2,000	27.35	33.73	$ 6.38	23.34%
3,000	30.85	43.88	$ 13.03	42.23%
4,000	34.35	54.02	$ 19.67	57.27%
5,000	37.85	64.17	$ 26.32	69.53%
6,000	41.35	74.31	$ 32.96	79.72%
7,000	44.85	84.46	$ 39.61	88.31%
8,000	48.35	94.60	$ 46.25	95.66%
9,000	51.85	108.75	$ 56.90	109.73%
10,000	55.35	122.89	$ 67.54	122.03%
11,000	58.85	137.04	$ 78.19	132.86%
12,000	62.35	151.18	$ 88.83	142.47%
13,000	65.85	165.33	$ 99.48	151.06%
14,000	69.35	179.47	$ 110.12	158.79%
15,000	72.85	193.62	$ 120.77	165.77%
16,000	76.35	207.76	$ 131.41	172.12%
17,000	79.85	221.91	$ 142.06	177.90%
18,000	83.35	236.05	$ 152.70	183.20%
19,000	86.85	250.19	$ 163.34	188.08%
20,000	90.35	264.34	$ 173.99	192.57%
25,000	107.85	335.06	$ 227.21	210.68%
30,000	125.35	405.79	$ 280.44	223.72%
35,000	142.85	476.51	$ 333.66	233.57%
40,000	160.35	547.23	$ 386.88	241.28%
45,000	177.85	617.96	$ 440.11	247.46%
50,000	195.35	688.68	$ 493.33	252.54%
60,000	230.35	830.13	$ 599.78	260.38%
70,000	265.35	971.58	$ 706.23	266.15%
80,000	300.35	1,113.02	$ 812.67	270.58%
90,000	335.35	1,254.47	$ 919.12	274.08%
100,000	370.35	1,395.92	$ 1,025.57	276.92%
Average Usage				
2,614	$ 29.50	$ 39.96	$ 10.46	35.47%

Present Rates:

Monthly Minimum:		$ 20.35
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	999,999,999	$ 3.50
Up to	999,999,999	$ 3.50
Up to	999,999,999	$ 3.50
Over	1,000,000,000	$ 3.50

Proposed Rates:

Monthly Minimum:		$ 22.14
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	2,000	$ 5.80
Up to	8,000	$ 10.14
Up to	999,999,999	$ 14.14
Over	1,000,000,000	$ 14.14

Pine Water Company
Bill Comparison
Customer Classification 5/8 Inch Residential - 14B
Winter Present and Proposed

Exhibit
Schedule H-4
Page 2a
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 20.35	$ 22.14	$ 1.79	8.80%
1,000	23.85	26.42	$ 2.57	10.79%
2,000	27.35	30.71	$ 3.36	12.28%
3,000	30.85	38.21	$ 7.36	23.84%
4,000	34.35	45.70	$ 11.35	33.05%
5,000	37.85	53.20	$ 15.35	40.55%
6,000	41.35	60.70	$ 19.35	46.79%
7,000	44.85	68.19	$ 23.34	52.05%
8,000	48.35	75.69	$ 27.34	56.55%
9,000	51.85	87.19	$ 35.34	68.15%
10,000	55.35	98.68	$ 43.33	78.29%
11,000	58.85	110.18	$ 51.33	87.22%
12,000	62.35	121.68	$ 59.33	95.15%
13,000	65.85	133.18	$ 67.33	102.24%
14,000	69.35	144.67	$ 75.32	108.61%
15,000	72.85	156.17	$ 83.32	114.37%
16,000	76.35	167.67	$ 91.32	119.60%
17,000	79.85	179.16	$ 99.31	124.37%
18,000	83.35	190.66	$ 107.31	128.75%
19,000	86.85	202.16	$ 115.31	132.77%
20,000	90.35	213.65	$ 123.30	136.47%
25,000	107.85	271.14	$ 163.29	151.40%
30,000	125.35	328.62	$ 203.27	162.17%
35,000	142.85	386.11	$ 243.26	170.29%
40,000	160.35	443.59	$ 283.24	176.64%
45,000	177.85	501.08	$ 323.23	181.74%
50,000	195.35	558.56	$ 363.21	185.93%
60,000	230.35	673.53	$ 443.18	192.40%
70,000	265.35	788.50	$ 523.15	197.16%
80,000	300.35	903.47	$ 603.12	200.81%
90,000	335.35	1,018.44	$ 683.09	203.70%
100,000	370.35	1,133.41	$ 763.06	206.04%
Average Usage				
1,707	$ 26.32	29.45	$ 3.13	11.88%

Present Rates:

Monthly Minimum:		$ 20.35
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	999,999,999	$ 3.50
Up to	999,999,999	$ 3.50
Up to	999,999,999	$ 3.50
Over	1,000,000,000	$ 3.50

Proposed Rates:

Monthly Minimum:		22.14
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	2,000	$ 4.28
Up to	8,000	$ 7.50
Up to	999,999,999	$ 11.50
Over	1,000,000,000	$ 11.50

Pine Water Company
Bill Comparison
Customer Classification — 3/4 Inch Residential - 14B
Summer Present and Proposed

Exhibit
Schedule H-4
Page 3
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 21.22	$ 33.21	$ 11.99	56.50%
1,000	24.72	39.01	$ 14.29	57.80%
2,000	28.22	44.80	$ 16.58	58.77%
3,000	31.72	54.95	$ 23.23	73.23%
4,000	35.22	65.09	$ 29.87	84.82%
5,000	38.72	75.24	$ 36.52	94.31%
6,000	42.22	85.38	$ 43.16	102.23%
7,000	45.72	95.53	$ 49.81	108.94%
8,000	49.22	105.67	$ 56.45	114.69%
9,000	52.72	119.82	$ 67.10	127.27%
10,000	56.22	133.96	$ 77.74	138.28%
11,000	59.72	148.11	$ 88.39	148.00%
12,000	63.22	162.25	$ 99.03	156.65%
13,000	66.72	176.40	$ 109.68	164.38%
14,000	70.22	190.54	$ 120.32	171.35%
15,000	73.72	204.69	$ 130.97	177.65%
16,000	77.22	218.83	$ 141.61	183.39%
17,000	80.72	232.98	$ 152.26	188.62%
18,000	84.22	247.12	$ 162.90	193.42%
19,000	87.72	261.26	$ 173.54	197.84%
20,000	91.22	275.41	$ 184.19	201.92%
25,000	108.72	346.13	$ 237.41	218.37%
30,000	126.22	416.86	$ 290.64	230.26%
35,000	143.72	487.58	$ 343.86	239.26%
40,000	161.22	558.30	$ 397.08	246.30%
45,000	178.72	629.03	$ 450.31	251.96%
50,000	196.22	699.75	$ 503.53	256.62%
60,000	231.22	841.20	$ 609.98	263.81%
70,000	266.22	982.65	$ 716.43	269.11%
80,000	301.22	1,124.09	$ 822.87	273.18%
90,000	336.22	1,265.54	$ 929.32	276.40%
100,000	371.22	1,406.99	$ 1,035.77	279.02%
Average Usage				
4,901	$ 38.37	$ 74.23	$ 35.86	93.45%

Present Rates:

Monthly Minimum:		$ 21.22
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	999,999,999	$ 3.50
Up to	999,999,999	$ 3.50
Up to	999,999,999	$ 3.50
Over	########	$ 3.50

Proposed Rates:

Monthly Minimum:		$ 33.21
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	2,000	$ 5.80
Up to	8,000	$ 10.14
Up to	999,999,999	$ 14.14
Over	########	$ 14.14

Pine Water Company
Bill Comparison
Customer Classification 3/4 Inch Residential - 14B
Winter Present and Proposed

Exhibit
Schedule H-4
Page 3a
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 21.22	$ 33.21	$ 11.99	56.50%
1,000	24.72	37.49	$ 12.77	51.67%
2,000	28.22	41.78	$ 13.56	48.04%
3,000	31.72	49.28	$ 17.56	55.34%
4,000	35.22	56.77	$ 21.55	61.19%
5,000	38.72	64.27	$ 25.55	65.98%
6,000	42.22	71.77	$ 29.55	69.98%
7,000	45.72	79.26	$ 33.54	73.37%
8,000	49.22	86.76	$ 37.54	76.27%
9,000	52.72	98.26	$ 45.54	86.38%
10,000	56.22	109.75	$ 53.53	95.22%
11,000	59.72	121.25	$ 61.53	103.03%
12,000	63.22	132.75	$ 69.53	109.98%
13,000	66.72	144.25	$ 77.53	116.19%
14,000	70.22	155.74	$ 85.52	121.79%
15,000	73.72	167.24	$ 93.52	126.86%
16,000	77.22	178.74	$ 101.52	131.46%
17,000	80.72	190.23	$ 109.51	135.67%
18,000	84.22	201.73	$ 117.51	139.53%
19,000	87.72	213.23	$ 125.51	143.08%
20,000	91.22	224.72	$ 133.50	146.35%
25,000	108.72	282.21	$ 173.49	159.57%
30,000	126.22	339.69	$ 213.47	169.13%
35,000	143.72	397.18	$ 253.46	176.36%
40,000	161.22	454.66	$ 293.44	182.01%
45,000	178.72	512.15	$ 333.43	186.57%
50,000	196.22	569.63	$ 373.41	190.30%
60,000	231.22	684.60	$ 453.38	196.08%
70,000	266.22	799.57	$ 533.35	200.34%
80,000	301.22	914.54	$ 613.32	203.61%
90,000	336.22	1,029.51	$ 693.29	206.20%
100,000	371.22	1,144.48	$ 773.26	208.30%
-	21.22	33.21	$ 11.99	56.50%
Average Usage				
5,215	$ 39.47	65.88	$ 26.41	66.90%

Present Rates:

Monthly Minimum:		$ 21.22
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	999,999,999	$ 3.50
Up to	999,999,999	$ 3.50
Up to	999,999,999	$ 3.50
Over	########	$ 3.50

Proposed Rates:

Monthly Minimum:		33.21
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	2,000	$ 4.28
Up to	8,000	$ 7.50
Up to	999,999,999	$ 11.50
Over	########	$ 11.50

Pine Water Company
Bill Comparison
Customer Classification — 1 Inch Residential - 14A
Summer Present and Proposed

Exhibit
Schedule H-4
Page 4
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 24.54	$ 55.35	$ 30.81	125.55%
1,000	27.94	61.15	$ 33.21	118.85%
2,000	31.34	66.94	$ 35.60	113.61%
3,000	34.74	72.74	$ 38.00	109.39%
4,000	38.14	78.54	$ 40.40	105.92%
5,000	44.09	84.34	$ 40.25	91.28%
6,000	50.04	90.13	$ 40.09	80.12%
7,000	55.99	95.93	$ 39.94	71.33%
8,000	61.94	101.73	$ 39.79	64.23%
9,000	67.89	107.52	$ 39.63	58.38%
10,000	73.84	113.32	$ 39.48	53.47%
11,000	79.79	123.46	$ 43.67	54.74%
12,000	85.74	133.61	$ 47.87	55.83%
13,000	91.69	143.75	$ 52.06	56.78%
14,000	97.64	153.90	$ 56.26	57.62%
15,000	103.59	164.04	$ 60.45	58.36%
16,000	109.54	174.19	$ 64.65	59.02%
17,000	115.49	184.33	$ 68.84	59.61%
18,000	121.44	194.48	$ 73.04	60.14%
19,000	127.39	204.62	$ 77.23	60.63%
20,000	133.34	214.77	$ 81.43	61.07%
25,000	163.09	265.49	$ 102.40	62.79%
30,000	192.84	336.22	$ 143.38	74.35%
35,000	222.59	406.94	$ 184.35	82.82%
40,000	252.34	477.66	$ 225.32	89.29%
45,000	282.09	548.39	$ 266.30	94.40%
50,000	311.84	619.11	$ 307.27	98.53%
60,000	371.34	760.56	$ 389.22	104.81%
70,000	430.84	902.01	$ 471.17	109.36%
80,000	490.34	1,043.45	$ 553.11	112.80%
90,000	549.84	1,184.90	$ 635.06	115.50%
100,000	609.34	1,326.35	$ 717.01	117.67%
Average Usage				
31,834	$ 203.75	$ 362.15	$ 158.40	77.74%

Present Rates:

Monthly Minimum:		$ 24.54
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		$ 55.35
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	10,000	$ 5.80
Up to	25,000	$ 10.14
Up to	999,999,999	$ 14.14
Over	1,000,000,000	$ 14.14

Pine Water Company
Bill Comparison
Customer Classification 1 Inch Residential - 14A
Winter Present and Proposed

Exhibit
Schedule H-4
Page 4a
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 24.54	$ 55.35	$ 30.81	125.55%
1,000	27.94	59.63	$ 31.69	113.44%
2,000	31.34	63.92	$ 32.58	103.95%
3,000	34.74	68.20	$ 33.46	96.32%
4,000	38.14	72.49	$ 34.35	90.05%
5,000	44.09	76.77	$ 32.68	74.12%
6,000	50.04	81.05	$ 31.01	61.98%
7,000	55.99	85.34	$ 29.35	52.42%
8,000	61.94	89.62	$ 27.68	44.69%
9,000	67.89	93.91	$ 26.02	38.32%
10,000	73.84	98.19	$ 24.35	32.98%
11,000	79.79	105.69	$ 25.90	32.46%
12,000	85.74	113.18	$ 27.44	32.01%
13,000	91.69	120.68	$ 28.99	31.62%
14,000	97.64	128.18	$ 30.54	31.28%
15,000	103.59	135.68	$ 32.09	30.97%
16,000	109.54	143.17	$ 33.63	30.70%
17,000	115.49	150.67	$ 35.18	30.46%
18,000	121.44	158.17	$ 36.73	30.24%
19,000	127.39	165.66	$ 38.27	30.04%
20,000	133.34	173.16	$ 39.82	29.86%
25,000	163.09	210.65	$ 47.56	29.16%
30,000	192.84	268.13	$ 75.29	39.04%
35,000	222.59	325.62	$ 103.03	46.28%
40,000	252.34	383.10	$ 130.76	51.82%
45,000	282.09	440.59	$ 158.50	56.19%
50,000	311.84	498.07	$ 186.23	59.72%
60,000	371.34	613.04	$ 241.70	65.09%
70,000	430.84	728.01	$ 297.17	68.97%
80,000	490.34	842.98	$ 352.64	71.92%
90,000	549.84	957.95	$ 408.11	74.22%
100,000	609.34	1,072.92	$ 463.58	76.08%
-	24.54	55.35	$ 30.81	125.55%
Average Usage				
28,836	$ 185.91	254.74	$ 68.83	37.02%

Present Rates:

Monthly Minimum:		$ 24.54
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	10,000	$ 4.28
Up to	25,000	$ 7.50
Up to	999,999,999	$ 11.50
Over	1,000,000,000	$ 11.50

Pine Water Company
Bill Comparison
Customer Classification — 2 Inch Residential - 14A
Summer Present and Proposed

Exhibit
Schedule H-4
Page 5
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 64.58	$ 177.12	$ 112.54	174.26%
1,000	67.98	182.92	$ 114.94	169.07%
2,000	71.38	188.71	$ 117.33	164.38%
3,000	74.78	194.51	$ 119.73	160.11%
4,000	78.18	200.31	$ 122.13	156.21%
5,000	84.13	206.11	$ 121.98	144.98%
6,000	90.08	211.90	$ 121.82	135.24%
7,000	96.03	217.70	$ 121.67	126.70%
8,000	101.98	223.50	$ 121.52	119.16%
9,000	107.93	229.29	$ 121.36	112.45%
10,000	113.88	235.09	$ 121.21	106.44%
11,000	119.83	245.23	$ 125.40	104.65%
12,000	125.78	255.38	$ 129.60	103.04%
13,000	131.73	265.52	$ 133.79	101.57%
14,000	137.68	275.67	$ 137.99	100.22%
15,000	143.63	285.81	$ 142.18	98.99%
16,000	149.58	295.96	$ 146.38	97.86%
17,000	155.53	306.10	$ 150.57	96.81%
18,000	161.48	316.25	$ 154.77	95.84%
19,000	167.43	326.39	$ 158.96	94.94%
20,000	173.38	336.54	$ 163.16	94.10%
25,000	203.13	387.26	$ 184.13	90.65%
30,000	232.88	457.99	$ 225.11	96.66%
35,000	262.63	528.71	$ 266.08	101.31%
40,000	292.38	599.43	$ 307.05	105.02%
45,000	322.13	670.16	$ 348.03	108.04%
50,000	351.88	740.88	$ 389.00	110.55%
60,000	411.38	882.33	$ 470.95	114.48%
70,000	470.88	1,023.78	$ 552.90	117.42%
80,000	530.38	1,165.22	$ 634.84	119.70%
90,000	589.88	1,306.67	$ 716.79	121.51%
100,000	649.38	1,448.12	$ 798.74	123.00%
Average Usage				
-	$ 64.58	$ 177.12	$ 112.54	174.26%

Present Rates:

Monthly Minimum:		$ 64.58
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		$ 177.12
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	10,000	$ 5.80
Up to	25,000	$ 10.14
Up to	999,999,999	$ 14.14
Over	1,000,000,000	$ 14.14

Pine Water Company
Bill Comparison
Customer Classification — 2 Inch Residential - 14A
Winter Present and Proposed

Exhibit
Schedule H-4
Page 5a
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 64.58	$ 177.12	$ 112.54	174.26%
1,000	67.98	181.40	$ 113.42	166.85%
2,000	71.38	185.69	$ 114.31	160.14%
3,000	74.78	189.97	$ 115.19	154.04%
4,000	78.18	194.26	$ 116.08	148.47%
5,000	84.13	198.54	$ 114.41	135.99%
6,000	90.08	202.82	$ 112.74	125.16%
7,000	96.03	207.11	$ 111.08	115.67%
8,000	101.98	211.39	$ 109.41	107.29%
9,000	107.93	215.68	$ 107.75	99.83%
10,000	113.88	219.96	$ 106.08	93.15%
11,000	119.83	227.46	$ 107.63	89.82%
12,000	125.78	234.95	$ 109.17	86.80%
13,000	131.73	242.45	$ 110.72	84.05%
14,000	137.68	249.95	$ 112.27	81.54%
15,000	143.63	257.45	$ 113.82	79.24%
16,000	149.58	264.94	$ 115.36	77.12%
17,000	155.53	272.44	$ 116.91	75.17%
18,000	161.48	279.94	$ 118.46	73.36%
19,000	167.43	287.43	$ 120.00	71.67%
20,000	173.38	294.93	$ 121.55	70.11%
25,000	203.13	332.42	$ 129.29	63.65%
30,000	232.88	389.90	$ 157.02	67.43%
35,000	262.63	447.39	$ 184.76	70.35%
40,000	292.38	504.87	$ 212.49	72.68%
45,000	322.13	562.36	$ 240.23	74.57%
50,000	351.88	619.84	$ 267.96	76.15%
60,000	411.38	734.81	$ 323.43	78.62%
70,000	470.88	849.78	$ 378.90	80.47%
80,000	530.38	964.75	$ 434.37	81.90%
90,000	589.88	1,079.72	$ 489.84	83.04%
100,000	649.38	1,194.69	$ 545.31	83.97%
-	64.58	177.12	$ 112.54	174.26%
Average Usage				
-	$ 64.58	$ 177.12	177.12	274.26%

Present Rates:

Monthly Minimum:		$ 64.58
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		177.12
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	10,000	$ 4.28
Up to	25,000	$ 7.50
Up to	999,999,999	$ 11.50
Over	1,000,000,000	$ 11.50

Pine Water Company
Bill Comparison
Customer Classification — 5/8 Inch Commercial - 14A
Summer Present and Proposed

Exhibit
Schedule H-4
Page 6
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 18.45	$ 22.14	$ 3.69	20.00%
1,000	21.85	27.94	$ 6.09	27.86%
2,000	25.25	33.73	$ 8.48	33.60%
3,000	28.65	43.88	$ 15.23	53.15%
4,000	32.05	54.02	$ 21.97	68.56%
5,000	38.00	64.17	$ 26.17	68.86%
6,000	43.95	74.31	$ 30.36	69.09%
7,000	49.90	84.46	$ 34.56	69.25%
8,000	55.85	94.60	$ 38.75	69.39%
9,000	61.80	108.75	$ 46.95	75.97%
10,000	67.75	122.89	$ 55.14	81.39%
11,000	73.70	137.04	$ 63.34	85.94%
12,000	79.65	151.18	$ 71.53	89.81%
13,000	85.60	165.33	$ 79.73	93.14%
14,000	91.55	179.47	$ 87.92	96.04%
15,000	97.50	193.62	$ 96.12	98.58%
16,000	103.45	207.76	$ 104.31	100.83%
17,000	109.40	221.91	$ 112.51	102.84%
18,000	115.35	236.05	$ 120.70	104.64%
19,000	121.30	250.19	$ 128.89	106.26%
20,000	127.25	264.34	$ 137.09	107.73%
25,000	157.00	335.06	$ 178.06	113.42%
30,000	186.75	405.79	$ 219.04	117.29%
35,000	216.50	476.51	$ 260.01	120.10%
40,000	246.25	547.23	$ 300.98	122.23%
45,000	276.00	617.96	$ 341.96	123.90%
50,000	305.75	688.68	$ 382.93	125.24%
60,000	365.25	830.13	$ 464.88	127.28%
70,000	424.75	971.58	$ 546.83	128.74%
80,000	484.25	1,113.02	$ 628.77	129.85%
90,000	543.75	1,254.47	$ 710.72	130.71%
100,000	603.25	1,395.92	$ 792.67	131.40%
Average Usage				
14,750	$ 96.02	$ 190.09	$ 94.07	97.97%

Present Rates:

Monthly Minimum:		$ 18.45
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		$ 22.14
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	2,000	$ 5.80
Up to	8,000	$ 10.14
Up to	999,999,999	$ 14.14
Over	1,000,000,000	$ 14.14

Pine Water Company
Bill Comparison
Customer Classification 5/8 Inch Commercial - 14A
Winter Present and Proposed

Exhibit
Schedule H-4
Page 6a
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 18.45	$ 22.14	$ 3.69	20.00%
1,000	21.85	26.42	$ 4.57	20.93%
2,000	25.25	30.71	$ 5.46	21.62%
3,000	28.65	38.21	$ 9.56	33.35%
4,000	32.05	45.70	$ 13.65	42.60%
5,000	38.00	53.20	$ 15.20	40.00%
6,000	43.95	60.70	$ 16.75	38.10%
7,000	49.90	68.19	$ 18.29	36.66%
8,000	55.85	75.69	$ 19.84	35.52%
9,000	61.80	87.19	$ 25.39	41.08%
10,000	67.75	98.68	$ 30.93	45.66%
11,000	73.70	110.18	$ 36.48	49.50%
12,000	79.65	121.68	$ 42.03	52.77%
13,000	85.60	133.18	$ 47.58	55.58%
14,000	91.55	144.67	$ 53.12	58.03%
15,000	97.50	156.17	$ 58.67	60.17%
16,000	103.45	167.67	$ 64.22	62.07%
17,000	109.40	179.16	$ 69.76	63.77%
18,000	115.35	190.66	$ 75.31	65.29%
19,000	121.30	202.16	$ 80.86	66.66%
20,000	127.25	213.65	$ 86.40	67.90%
25,000	157.00	271.14	$ 114.14	72.70%
30,000	186.75	328.62	$ 141.87	75.97%
35,000	216.50	386.11	$ 169.61	78.34%
40,000	246.25	443.59	$ 197.34	80.14%
45,000	276.00	501.08	$ 225.08	81.55%
50,000	305.75	558.56	$ 252.81	82.69%
60,000	365.25	673.53	$ 308.28	84.40%
70,000	424.75	788.50	$ 363.75	85.64%
80,000	484.25	903.47	$ 419.22	86.57%
90,000	543.75	1,018.44	$ 474.69	87.30%
100,000	603.25	1,133.41	$ 530.16	87.88%
Average Usage				
9,786	$ 66.48	96.23	$ 29.75	44.75%

Present Rates:

Monthly Minimum:		$ 18.45
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		22.14
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	2,000	$ 4.28
Up to	8,000	$ 7.50
Up to	999,999,999	$ 11.50
Over	1,000,000,000	$ 11.50

Pine Water Company
Bill Comparison
Customer Classification — 1 Inch Commercial - 14A
Summer Present and Proposed

Exhibit
Schedule H-4
Page 7
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 24.54	$ 55.35	$ 30.81	125.55%
1,000	27.94	61.15	$ 33.21	118.85%
2,000	31.34	66.94	$ 35.60	113.61%
3,000	34.74	72.74	$ 38.00	109.39%
4,000	38.14	78.54	$ 40.40	105.92%
5,000	44.09	84.34	$ 40.25	91.28%
6,000	50.04	90.13	$ 40.09	80.12%
7,000	55.99	95.93	$ 39.94	71.33%
8,000	61.94	101.73	$ 39.79	64.23%
9,000	67.89	107.52	$ 39.63	58.38%
10,000	73.84	113.32	$ 39.48	53.47%
11,000	79.79	123.46	$ 43.67	54.74%
12,000	85.74	133.61	$ 47.87	55.83%
13,000	91.69	143.75	$ 52.06	56.78%
14,000	97.64	153.90	$ 56.26	57.62%
15,000	103.59	164.04	$ 60.45	58.36%
16,000	109.54	174.19	$ 64.65	59.02%
17,000	115.49	184.33	$ 68.84	59.61%
18,000	121.44	194.48	$ 73.04	60.14%
19,000	127.39	204.62	$ 77.23	60.63%
20,000	133.34	214.77	$ 81.43	61.07%
25,000	163.09	265.49	$ 102.40	62.79%
30,000	192.84	336.22	$ 143.38	74.35%
35,000	222.59	406.94	$ 184.35	82.82%
40,000	252.34	477.66	$ 225.32	89.29%
45,000	282.09	548.39	$ 266.30	94.40%
50,000	311.84	619.11	$ 307.27	98.53%
60,000	371.34	760.56	$ 389.22	104.81%
70,000	430.84	902.01	$ 471.17	109.36%
80,000	490.34	1,043.45	$ 553.11	112.80%
90,000	549.84	1,184.90	$ 635.06	115.50%
100,000	609.34	1,326.35	$ 717.01	117.67%
Average Usage				
44,901	$ 281.50	$ 546.98	$ 265.48	94.31%

Present Rates:

Monthly Minimum:		$ 24.54
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		$ 55.35
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	10,000	$ 5.80
Up to	25,000	$ 10.14
Up to	999,999,999	$ 14.14
Over	1,000,000,000	$ 14.14

Pine Water Company
Bill Comparison
Customer Classification 1 Inch Commercial - 14A
Winter Present and Proposed

Exhibit
Schedule H-4
Page 7a
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 24.54	$ 55.35	$ 30.81	125.55%
1,000	27.94	59.63	$ 31.69	113.44%
2,000	31.34	63.92	$ 32.58	103.95%
3,000	34.74	68.20	$ 33.46	96.32%
4,000	38.14	72.49	$ 34.35	90.05%
5,000	44.09	76.77	$ 32.68	74.12%
6,000	50.04	81.05	$ 31.01	61.98%
7,000	55.99	85.34	$ 29.35	52.42%
8,000	61.94	89.62	$ 27.68	44.69%
9,000	67.89	93.91	$ 26.02	38.32%
10,000	73.84	98.19	$ 24.35	32.98%
11,000	79.79	105.69	$ 25.90	32.46%
12,000	85.74	113.18	$ 27.44	32.01%
13,000	91.69	120.68	$ 28.99	31.62%
14,000	97.64	128.18	$ 30.54	31.28%
15,000	103.59	135.68	$ 32.09	30.97%
16,000	109.54	143.17	$ 33.63	30.70%
17,000	115.49	150.67	$ 35.18	30.46%
18,000	121.44	158.17	$ 36.73	30.24%
19,000	127.39	165.66	$ 38.27	30.04%
20,000	133.34	173.16	$ 39.82	29.86%
25,000	163.09	210.65	$ 47.56	29.16%
30,000	192.84	268.13	$ 75.29	39.04%
35,000	222.59	325.62	$ 103.03	46.28%
40,000	252.34	383.10	$ 130.76	51.82%
45,000	282.09	440.59	$ 158.50	56.19%
50,000	311.84	498.07	$ 186.23	59.72%
60,000	371.34	613.04	$ 241.70	65.09%
70,000	430.84	728.01	$ 297.17	68.97%
80,000	490.34	842.98	$ 352.64	71.92%
90,000	549.84	957.95	$ 408.11	74.22%
100,000	609.34	1,072.92	$ 463.58	76.08%
-	24.54	55.35	$ 30.81	125.55%
Average Usage				
27,358	$ 177.12	237.75	$ 60.63	34.23%

Present Rates:

Monthly Minimum:		$ 24.54
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		55.35
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	10,000	$ 4.28
Up to	25,000	$ 7.50
Up to	999,999,999	$ 11.50
Over	1,000,000,000	$ 11.50

Pine Water Company
Bill Comparison
Customer Classification — 2 Inch Commercial - 14A
Summer Present and Proposed

Exhibit
Schedule H-4
Page 8
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 64.58	$ 177.12	$ 112.54	174.26%
1,000	67.98	182.92	$ 114.94	169.07%
2,000	71.38	188.71	$ 117.33	164.38%
3,000	74.78	194.51	$ 119.73	160.11%
4,000	78.18	200.31	$ 122.13	156.21%
5,000	84.13	206.11	$ 121.98	144.98%
6,000	90.08	211.90	$ 121.82	135.24%
7,000	96.03	217.70	$ 121.67	126.70%
8,000	101.98	223.50	$ 121.52	119.16%
9,000	107.93	229.29	$ 121.36	112.45%
10,000	113.88	235.09	$ 121.21	106.44%
11,000	119.83	245.23	$ 125.40	104.65%
12,000	125.78	255.38	$ 129.60	103.04%
13,000	131.73	265.52	$ 133.79	101.57%
14,000	137.68	275.67	$ 137.99	100.22%
15,000	143.63	285.81	$ 142.18	98.99%
16,000	149.58	295.96	$ 146.38	97.86%
17,000	155.53	306.10	$ 150.57	96.81%
18,000	161.48	316.25	$ 154.77	95.84%
19,000	167.43	326.39	$ 158.96	94.94%
20,000	173.38	336.54	$ 163.16	94.10%
25,000	203.13	387.26	$ 184.13	90.65%
30,000	232.88	457.99	$ 225.11	96.66%
35,000	262.63	528.71	$ 266.08	101.31%
40,000	292.38	599.43	$ 307.05	105.02%
45,000	322.13	670.16	$ 348.03	108.04%
50,000	351.88	740.88	$ 389.00	110.55%
60,000	411.38	882.33	$ 470.95	114.48%
70,000	470.88	1,023.78	$ 552.90	117.42%
80,000	530.38	1,165.22	$ 634.84	119.70%
90,000	589.88	1,306.67	$ 716.79	121.51%
100,000	649.38	1,448.12	$ 798.74	123.00%
Average Usage				
38,801	$ 285.24	$ 582.47	$ 297.22	104.20%

Present Rates:

Monthly Minimum:		$ 64.58
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		$ 177.12
Gallons in Minimum		-
Charge Per 1,000 Gallons		Summer
Up to	10,000	$ 5.80
Up to	25,000	$ 10.14
Up to	999,999,999	$ 14.14
Over	1,000,000,000	$ 14.14

Pine Water Company
Bill Comparison
Customer Classification 2 Inch Commercial - 14A
Winter Present and Proposed

Exhibit
Schedule H-4
Page 8a
Witness: Bourassa

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	$ 64.58	$ 177.12	$ 112.54	174.26%
1,000	67.98	181.40	$ 113.42	166.85%
2,000	71.38	185.69	$ 114.31	160.14%
3,000	74.78	189.97	$ 115.19	154.04%
4,000	78.18	194.26	$ 116.08	148.47%
5,000	84.13	198.54	$ 114.41	135.99%
6,000	90.08	202.82	$ 112.74	125.16%
7,000	96.03	207.11	$ 111.08	115.67%
8,000	101.98	211.39	$ 109.41	107.29%
9,000	107.93	215.68	$ 107.75	99.83%
10,000	113.88	219.96	$ 106.08	93.15%
11,000	119.83	227.46	$ 107.63	89.82%
12,000	125.78	234.95	$ 109.17	86.80%
13,000	131.73	242.45	$ 110.72	84.05%
14,000	137.68	249.95	$ 112.27	81.54%
15,000	143.63	257.45	$ 113.82	79.24%
16,000	149.58	264.94	$ 115.36	77.12%
17,000	155.53	272.44	$ 116.91	75.17%
18,000	161.48	279.94	$ 118.46	73.36%
19,000	167.43	287.43	$ 120.00	71.67%
20,000	173.38	294.93	$ 121.55	70.11%
25,000	203.13	332.42	$ 129.29	63.65%
30,000	232.88	389.90	$ 157.02	67.43%
35,000	262.63	447.39	$ 184.76	70.35%
40,000	292.38	504.87	$ 212.49	72.68%
45,000	322.13	562.36	$ 240.23	74.57%
50,000	351.88	619.84	$ 267.96	76.15%
60,000	411.38	734.81	$ 323.43	78.62%
70,000	470.88	849.78	$ 378.90	80.47%
80,000	530.38	964.75	$ 434.37	81.90%
90,000	589.88	1,079.72	$ 489.84	83.04%
100,000	649.38	1,194.69	$ 545.31	83.97%
Average Usage				
28,358	$ 223.11	371.02	$ 147.91	66.30%

Present Rates:

Monthly Minimum:		$ 64.58
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	4,000	$ 3.40
Up to	999,999,999	$ 5.95
Up to	999,999,999	$ 5.95
Over	1,000,000,000	$ 5.95

Proposed Rates:

Monthly Minimum:		177.12
Gallons in Minimum		
Charge Per 1,000 Gallons		Winter
Up to	10,000	$ 4.28
Up to	25,000	$ 7.50
Up to	999,999,999	$ 11.50
Over	1,000,000,000	$ 11.50

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 5/8 Inch Residential - 14A

Exhibit
Schedcule H-5
Page 1
Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
-	-	520	433	422	367	287	198	225	206	214	295	323	422	3,912	3,912
1	1,000	360	442	448	441	449	379	447	493	461	450	452	415	5,237	9,149
1,001	2,000	185	146	177	191	181	244	244	251	248	212	182	166	2,427	11,576
2,001	3,000	129	145	146	121	144	167	167	166	175	181	167	167	1,875	13,451
3,001	4,000	87	115	84	111	105	120	128	127	121	110	125	101	1,334	14,785
4,001	5,000	57	59	75	75	74	99	78	80	83	71	75	84	910	15,695
5,001	6,000	48	38	51	50	76	62	64	52	62	51	58	46	658	16,353
6,001	7,000	25	28	27	43	42	57	44	38	39	35	37	36	451	16,804
7,001	8,000	21	25	17	28	29	32	25	34	25	24	26	22	308	17,112
8,001	9,000	12	11	11	19	16	32	24	11	30	20	23	17	226	17,338
9,001	10,000	8	10	7	13	14	26	20	12	10	11	5	6	142	17,480
10,001	11,000	5	2	3	8	11	19	6	10	2	6	11	5	88	17,568
11,001	12,000	4	5	2	6	13	9	5	7	8	7	4	6	76	17,644
12,001	13,000	1	4	1	6	8	14	6	4	5	11	4	5	69	17,713
13,001	14,000	2	3	1	3	8	9	5	0	7	8	2	3	51	17,764
14,001	15,000	1	0	1	3	7	6	5	6	5	3	2	3	42	17,806
15,001	16,000	3	3	0	1	4	4	2	2	1	7	4	2	33	17,839
16,001	17,000	2	1	0	0	2	8	4	0	0	3	1	1	22	17,861
17,001	18,000	1	1	3	1	3	2	5	2	1	1	0	2	22	17,883
18,001	19,000	0	1	2	0	3	4	1	0	2	1	1	0	15	17,898
19,001	20,000	0	2	0	1	3	2	0	3	3	5	1	1	21	17,919
20,001	21,000	0	1	1	0	4	2	0	1	1	1	0	1	12	17,931
21,001	22,000	1	0	1	1	3	0	1	0	1	0	0	0	8	17,939
22,001	23,000	0	0	0	0	1	2	0	0	0	1	3	0	7	17,946
23,001	24,000	0	0	0	0	0	1	1	3	0	1	0	0	6	17,952
24,001	25,000	0	1	0	0	3	1	1	0	0	3	1	0	10	17,962
25,001	26,000	2	0	0	0	1	1	2	0	0	0	1	0	7	17,969
26,001	27,000	0	0	0	0	0	0	1	2	0	1	0	0	4	17,973
27,001	28,000	0	0	0	0	0	1	0	1	2	0	0	0	4	17,977
28,001	29,000	0	1	0	0	0	2	0	0	0	0	0	0	3	17,980
29,001	30,000	0	0	1	0	0	1	1	0	2	1	0	0	6	17,986
30,001	31,000	0	0	0	0	1	0	0	1	0	0	0	0	2	17,988
31,001	32,000	0	0	0	0	0	0	0	0	0	1	0	0	1	17,989
32,001	33,000	0	0	0	0	1	0	0	0	1	0	0	0	2	17,991
33,001	34,000	0	0	0	0	1	0	0	2	1	0	0	0	4	17,995
34,001	35,000	0	1	0	0	0	0	1	0	0	1	0	1	4	17,999
35,001	36,000	0	0	0	0	0	0	0	0	0	0	0	0	-	17,999
36,001	37,000	0	0	0	0	0	0	1	0	0	0	0	0	1	18,000
37,001	38,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,000
38,001	39,000	0	0	0	1	0	0	0	0	0	0	0	0	1	18,001
39,001	40,000	0	0	0	0	1	0	0	0	0	0	0	0	1	18,002
40,001	41,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,002
41,001	42,000	1	0	0	0	0	1	0	0	1	0	0	1	4	18,006
42,001	43,000	0	0	0	0	0	0	0	1	0	0	0	0	1	18,007
43,001	44,000	0	0	1	0	0	0	0	1	0	0	0	0	2	18,009
44,001	45,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,009
45,001	46,000	0	0	0	0	0	1	0	0	0	0	0	0	1	18,010
46,001	47,000	0	0	0	0	0	0	0	1	0	0	0	0	1	18,011
47,001	48,000	0	0	0	0	0	0	0	0	0	0	1	0	1	18,012
48,001	49,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,012
49,001	50,000	1	0	0	0	0	0	0	0	0	0	0	0	1	18,013

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification — 5/8 Inch Residential - 14A

Exhibit
Schedule H-5
Page 1a
Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
50,001	51,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,013
51,001	52,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,013
52,001	53,000	0	1	0	0	0	0	0	0	0	0	0	0	1	18,014
53,001	54,000	0	0	0	1	0	0	0	0	0	0	0	0	1	18,015
54,001	55,000	0	0	0	0	0	0	1	0	0	0	0	0	1	18,016
55,001	56,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,016
56,001	57,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,016
57,001	58,000	0	0	0	0	0	0	0	0	1	0	0	0	1	18,017
58,001	59,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,017
59,001	60,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,017
60,001	61,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,017
61,001	62,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,017
62,001	63,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,017
63,001	64,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,017
64,001	65,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,017
65,001	66,000	0	0	0	0	1	0	0	0	0	0	0	0	1	18,018
66,001	67,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,018
67,001	68,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,018
68,001	69,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,018
69,001	70,000	1	0	0	0	0	0	0	0	0	0	0	0	1	18,019
70,001	71,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,019
71,001	72,000	0	0	0	0	0	0	0	0	0	1	0	0	1	18,020
72,001	73,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,020
73,001	74,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,020
74,001	75,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,020
75,001	76,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,020
76,001	77,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,020
77,001	78,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,020
78,001	79,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,020
79,001	80,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,020
80,001	81,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,020
81,001	82,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,020
82,001	83,000	0	0	0	0	1	0	0	0	0	0	0	0	1	18,021
83,001	84,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,021
84,001	85,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,021
85,001	86,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,021
86,001	87,000	0	0	0	0	0	1	0	0	0	0	0	0	1	18,022
87,001	88,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,022
88,001	89,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,022
89,001	90,000	0	0	0	0	0	0	0	0	0	0	0	1	1	18,023
90,001	91,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,023
91,001	92,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,023
92,001	93,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,023
93,001	94,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,023
94,001	95,000	1	0	0	0	0	0	0	0	0	0	0	0	1	18,024
95,001	96,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,024
96,001	97,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,024
97,001	98,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,024
98,001	99,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,024
99,001	100,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18,024
137,883	137,883	0	0	0	0	0	1	0	0	0	0	0	0	1	18,025
128,440	128,440	0	0	0	0	0	0	0	0	1	0	0	0	1	18,026
128,440	128,440	0	0	0	0	0	0	0	0	1	0	0	0	1	18,027
	Totals	1,478	1,479	1,482	1,491	1,497	1,508	1,515	1,517	1,514	1,523	1,509	1,514	18,027	

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 5/8 Inch Residential - 14B

Exhibit
Schedule H-5
Page 2
Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
-	-	81	73	76	69	60	37	49	58	33	53	52	52	693	693
1	1,000	147	168	164	138	138	117	113	146	139	143	143	158	1,714	2,407
1,001	2,000	64	36	38	53	50	52	61	57	52	40	53	54	610	3,017
2,001	3,000	30	23	42	35	28	34	39	39	40	37	39	35	421	3,438
3,001	4,000	15	21	11	21	19	28	28	15	22	21	21	33	255	3,693
4,001	5,000	8	18	10	15	20	18	13	9	17	22	18	8	176	3,869
5,001	6,000	5	7	7	15	8	13	12	9	11	13	14	7	121	3,990
6,001	7,000	2	5	4	3	3	10	6	11	7	9	6	5	71	4,061
7,001	8,000	4	3	2	3	6	10	10	8	12	4	4	1	67	4,128
8,001	9,000	0	0	2	1	2	7	11	1	6	5	1	2	38	4,166
9,001	10,000	1	2	1	0	7	6	5	2	2	3	0	0	29	4,195
10,001	11,000	2	0	1	4	4	4	3	1	2	3	0	1	25	4,220
11,001	12,000	0	1	0	0	3	3	0	0	4	1	5	0	17	4,237
12,001	13,000	0	0	0	0	3	3	2	1	3	1	1	0	14	4,251
13,001	14,000	0	2	0	1	0	4	0	0	1	0	0	1	9	4,260
14,001	15,000	0	0	0	0	0	2	1	2	0	0	0	0	5	4,265
15,001	16,000	0	0	0	0	0	3	1	1	2	1	1	0	9	4,274
16,001	17,000	0	0	0	0	1	3	1	0	1	0	0	0	6	4,280
17,001	18,000	0	0	0	0	0	1	1	0	1	1	0	0	4	4,284
18,001	19,000	0	0	0	0	1	0	0	0	1	1	0	0	3	4,287
19,001	20,000	0	0	0	0	0	0	0	0	0	0	1	0	1	4,288
20,001	21,000	0	0	0	0	1	0	2	0	1	0	0	1	5	4,293
21,001	22,000	0	0	0	0	1	0	0	0	1	1	0	2	5	4,298
22,001	23,000	0	0	0	0	1	0	0	0	0	0	0	0	1	4,299
23,001	24,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,299
24,001	25,000	1	0	0	0	0	0	0	0	0	0	1	0	2	4,301
25,001	26,000	0	0	0	0	0	0	1	1	0	1	0	0	3	4,304
26,001	27,000	0	0	0	0	0	0	0	0	1	1	0	0	2	4,306
27,001	28,000	0	0	0	0	0	0	0	0	0	0	0	1	1	4,307
28,001	29,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,307
29,001	30,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,307
30,001	31,000	0	0	0	0	0	0	0	1	1	0	0	0	2	4,309
31,001	32,000	0	0	0	0	0	0	0	0	0	1	0	0	1	4,310
32,001	33,000	0	0	0	0	0	1	0	0	0	0	0	0	1	4,311
33,001	34,000	0	0	0	0	0	1	0	0	0	1	0	0	2	4,313
34,001	35,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,313
35,001	36,000	0	0	0	0	1	0	0	0	0	0	0	0	1	4,314
36,001	37,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,314
37,001	38,000	0	0	0	0	0	1	0	0	0	0	0	0	1	4,315
38,001	39,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,315
39,001	40,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,315
40,001	41,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,315
41,001	42,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,315
42,001	43,000	0	0	0	0	0	1	0	0	0	0	0	0	1	4,316
43,001	44,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
44,001	45,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
45,001	46,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
46,001	47,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
47,001	48,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
48,001	49,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
49,001	50,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 5/8 Inch Residential - 14B

Exhibit
Schedule H-5
Page 2a
Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
49,001	50,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
50,001	51,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
51,001	52,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
52,001	53,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
53,001	54,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
54,001	55,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
55,001	56,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
56,001	57,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
57,001	58,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
58,001	59,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
59,001	60,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
60,001	61,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
61,001	62,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
62,001	63,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
63,001	64,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
64,001	65,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,316
65,001	66,000	0	0	0	0	0	0	1	0	0	0	0	0	1	4,317
66,001	67,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,317
67,001	68,000	0	0	0	0	0	0	0	0	0	0	1	0	1	4,318
68,001	69,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
69,001	70,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
70,001	71,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
71,001	72,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
72,001	73,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
73,001	74,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
74,001	75,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
75,001	76,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
76,001	77,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
77,001	78,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
78,001	79,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
79,001	80,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,318
80,001	81,000	0	0	0	0	0	0	1	0	0	0	0	0	1	4,319
81,001	82,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
82,001	83,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
83,001	84,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
84,001	85,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
85,001	86,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
86,001	87,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
87,001	88,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
88,001	89,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
89,001	90,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
90,001	91,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
91,001	92,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
92,001	93,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
93,001	94,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
94,001	95,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
95,001	96,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
96,001	97,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
97,001	98,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
98,001	99,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
99,001	100,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4,319
100,820	100,820	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4,320
	Totals	360	359	358	358	357	359	361	362	360	364	361	361	4,320	

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 3/4 Inch Residential - 14B

Exhibit
Schedule H-5
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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
-	-	0	0	0	0	0	0	0	0	0	0	0	0	-	-
1	1,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
1,001	2,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2,001	3,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
3,001	4,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
4,001	5,000	1	0	1	0	1	0	1	1	0	1	0	1	7	7
5,001	6,000	0	0	0	0	0	1	0	0	1	0	1	0	3	10
6,001	7,000	0	1	0	1	0	0	0	0	0	0	0	0	2	12
7,001	8,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
8,001	9,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
9,001	10,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
10,001	11,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
11,001	12,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
12,001	13,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
13,001	14,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
14,001	15,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
15,001	16,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
16,001	17,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
17,001	18,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
18,001	19,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
19,001	20,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
20,001	21,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
21,001	22,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
22,001	23,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
23,001	24,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
24,001	25,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
25,001	26,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
26,001	27,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
27,001	28,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
28,001	29,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
29,001	30,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
30,001	31,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
31,001	32,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
32,001	33,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
33,001	34,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
34,001	35,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
35,001	36,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
36,001	37,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
37,001	38,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
38,001	39,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
39,001	40,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
40,001	41,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
41,001	42,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
42,001	43,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
43,001	44,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
44,001	45,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
45,001	46,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
46,001	47,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
47,001	48,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
48,001	49,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
49,001	50,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 3/4 Inch Residential - 14B

Exhibit
Schedule H-5
Page 3a
Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
49,001	50,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
50,001	51,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
51,001	52,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
52,001	53,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
53,001	54,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
54,001	55,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
55,001	56,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
56,001	57,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
57,001	58,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
58,001	59,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
59,001	60,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
60,001	61,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
61,001	62,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
62,001	63,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
63,001	64,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
64,001	65,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
65,001	66,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
66,001	67,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
67,001	68,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
68,001	69,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
69,001	70,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
70,001	71,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
71,001	72,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
72,001	73,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
73,001	74,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
74,001	75,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
75,001	76,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
76,001	77,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
77,001	78,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
78,001	79,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
79,001	80,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
80,001	81,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
81,001	82,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
82,001	83,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
83,001	84,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
84,001	85,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
85,001	86,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
86,001	87,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
87,001	88,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
88,001	89,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
89,001	90,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
90,001	91,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
91,001	92,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
92,001	93,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
93,001	94,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
94,001	95,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
95,001	96,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
96,001	97,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
97,001	98,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
98,001	99,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
99,001	100,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
	Totals	1	1	1	1	1	1	1	1	1	1	1	1	12	

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 1 Inch Residential - 14A

Exhibit
Schedule H-5
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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
-	-	0	0	1	0	0	0	0	0	0	0	0	0	1	1
1	1,000	0	0	0	0	0	0	0	1	1	0	0	0	2	3
1,001	2,000	1	0	0	1	0	0	0	0	0	1	0	0	3	6
2,001	3,000	0	0	0	0	0	0	0	0	0	0	1	0	1	7
3,001	4,000	0	0	0	0	0	0	0	0	0	0	0	1	1	8
4,001	5,000	0	0	0	0	0	0	0	0	0	0	0	0	-	8
5,001	6,000	0	0	0	0	0	0	0	0	0	0	0	0	-	8
6,001	7,000	0	0	0	0	0	0	0	0	0	0	0	0	-	8
7,001	8,000	0	0	0	0	0	0	0	0	0	0	0	0	-	8
8,001	9,000	0	0	0	0	1	0	0	0	0	0	0	0	1	9
9,001	10,000	0	0	0	0	0	1	0	0	0	0	0	0	1	10
10,001	11,000	0	0	0	0	0	0	0	0	0	1	1	1	3	13
11,001	12,000	0	0	0	0	0	0	0	0	0	0	0	0	-	13
12,001	13,000	0	0	0	0	0	0	0	0	0	0	0	0	-	13
13,001	14,000	0	0	0	0	0	0	0	0	0	0	0	0	-	13
14,001	15,000	0	0	0	0	0	0	0	0	1	0	0	0	1	14
15,001	16,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
16,001	17,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
17,001	18,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
18,001	19,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
19,001	20,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
20,001	21,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
21,001	22,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
22,001	23,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
23,001	24,000	0	0	0	0	0	0	0	1	0	0	0	1	2	16
24,001	25,000	0	0	0	0	0	0	0	0	0	0	0	0	-	16
25,001	26,000	0	0	0	0	0	0	0	0	0	0	0	0	-	16
26,001	27,000	0	0	0	0	0	0	1	0	0	0	0	0	1	17
27,001	28,000	0	0	0	0	0	0	0	0	0	0	0	0	-	17
28,001	29,000	0	0	0	0	0	0	0	0	0	0	0	0	-	17
29,001	30,000	0	0	0	0	0	0	0	0	0	0	0	0	-	17
30,001	31,000	0	0	0	0	0	0	0	0	0	0	0	0	-	17
31,001	32,000	0	0	0	0	0	0	0	0	0	0	0	0	-	17
32,001	33,000	0	0	0	0	0	0	0	0	0	0	0	0	-	17
33,001	34,000	0	0	0	0	0	0	0	0	0	0	0	0	-	17
34,001	35,000	0	0	0	0	0	0	0	0	0	0	1	0	1	18
35,001	36,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
36,001	37,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
37,001	38,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
38,001	39,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
39,001	40,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
40,001	41,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
41,001	42,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
42,001	43,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
43,001	44,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
44,001	45,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
45,001	46,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
46,001	47,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
47,001	48,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
48,001	49,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
49,001	50,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 1 Inch Residential - 14A

Exhibit
Schedule H-5
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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
50,001	51,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
51,001	52,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
52,001	53,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
53,001	54,000	0	0	0	0	0	0	0	0	0	1	0	0	1	19
54,001	55,000	0	0	0	0	0	0	0	0	0	0	0	0	-	19
55,001	56,000	0	0	0	0	0	0	0	0	0	0	0	0	-	19
56,001	57,000	0	0	0	0	0	0	0	0	0	0	0	0	-	19
57,001	58,000	0	0	0	0	0	0	0	0	0	0	0	0	-	19
58,001	59,000	0	0	0	0	0	1	0	0	0	0	0	0	1	20
59,001	60,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
60,001	61,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
61,001	62,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
62,001	63,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
63,001	64,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
64,001	65,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
65,001	66,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
66,001	67,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
67,001	68,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
68,001	69,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
69,001	70,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
70,001	71,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
71,001	72,000	0	0	0	0	0	0	1	0	0	0	0	0	1	21
72,001	73,000	0	0	0	0	0	0	0	0	0	0	0	0	-	21
73,001	74,000	0	0	0	0	0	0	0	1	0	0	0	0	1	22
74,001	75,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
75,001	76,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
76,001	77,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
77,001	78,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
78,001	79,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
79,001	80,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
80,001	81,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
81,001	82,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
82,001	83,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
83,001	84,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
84,001	85,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
85,001	86,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
86,001	87,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
87,001	88,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
88,001	89,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
89,001	90,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
90,001	91,000	0	0	0	0	0	0	0	0	1	0	0	0	1	23
91,001	92,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
92,001	93,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
93,001	94,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
94,001	95,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
95,001	96,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
96,001	97,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
97,001	98,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
98,001	99,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
99,001	100,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
148,680	148,680	0	1	0	0	0	0	0	0	0	0	0	0	1	24
	Totals	1	1	1	1	1	2	2	3	3	3	3	3	24	

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 2 Inch Residential - 14A

Exhibit
Schedule H-5
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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
-	-	0	0	0	0	1	1	1	0	0	0	0	0	3	3
1	1,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
1,001	2,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
2,001	3,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
3,001	4,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
4,001	5,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
5,001	6,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
6,001	7,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
7,001	8,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
8,001	9,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
9,001	10,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
10,001	11,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
11,001	12,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
12,001	13,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
13,001	14,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
14,001	15,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
15,001	16,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
16,001	17,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
17,001	18,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
18,001	19,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
19,001	20,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
20,001	21,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
21,001	22,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
22,001	23,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
23,001	24,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
24,001	25,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
25,001	26,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
26,001	27,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
27,001	28,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
28,001	29,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
29,001	30,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
30,001	31,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
31,001	32,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
32,001	33,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
33,001	34,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
34,001	35,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
35,001	36,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
36,001	37,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
37,001	38,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
38,001	39,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
39,001	40,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
40,001	41,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
41,001	42,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
42,001	43,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
43,001	44,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
44,001	45,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
45,001	46,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
46,001	47,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
47,001	48,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
48,001	49,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
49,001	50,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification — 2 Inch Residential - 14A

Exhibit
Schedule H-5
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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
-	-	0	0	0	0	1	1	1	0	0	0	0	0	3	3
50,001	51,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
51,001	52,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
52,001	53,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
53,001	54,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
54,001	55,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
55,001	56,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
56,001	57,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
57,001	58,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
58,001	59,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
59,001	60,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
60,001	61,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
61,001	62,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
62,001	63,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
63,001	64,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
64,001	65,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
65,001	66,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
66,001	67,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
67,001	68,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
68,001	69,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
69,001	70,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
70,001	71,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
71,001	72,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
72,001	73,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
73,001	74,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
74,001	75,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
75,001	76,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
76,001	77,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
77,001	78,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
78,001	79,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
79,001	80,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
80,001	81,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
81,001	82,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
82,001	83,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
83,001	84,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
84,001	85,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
85,001	86,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
86,001	87,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
87,001	88,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
88,001	89,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
89,001	90,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
90,001	91,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
91,001	92,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
92,001	93,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
93,001	94,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
94,001	95,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
95,001	96,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
96,001	97,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
97,001	98,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
98,001	99,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
99,001	100,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
	Totals	-	-	-	-	1	1	1	-	-	-	-	-	3	

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 5/8 Inch Commercial - 14A

Exhibit
Schedule H-5
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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
-	-	0	0	0	0	1	0	0	0	0	0	0	0	1	1
1	1,000	1	1	1	1	1	1	0	1	0	1	1	1	10	11
1,001	2,000	0	0	0	0	0	0	1	0	1	0	0	0	2	13
2,001	3,000	0	0	0	0	0	0	0	0	0	0	0	0	-	13
3,001	4,000	0	0	0	0	0	0	0	0	0	0	0	0	-	13
4,001	5,000	0	0	0	0	0	0	0	0	0	0	0	0	-	13
5,001	6,000	0	0	0	0	0	0	0	0	0	0	0	0	-	13
6,001	7,000	0	0	0	0	0	0	0	0	0	0	0	0	-	13
7,001	8,000	0	0	0	0	0	0	0	0	0	0	0	0	-	13
8,001	9,000	1	0	0	0	0	0	0	0	0	0	0	0	1	14
9,001	10,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
10,001	11,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
11,001	12,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
12,001	13,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
13,001	14,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
14,001	15,000	0	0	0	0	0	0	0	0	0	0	0	0	-	14
15,001	16,000	0	1	0	0	0	0	0	0	0	0	0	0	1	15
16,001	17,000	0	0	0	0	0	0	0	0	0	0	0	0	-	15
17,001	18,000	0	0	0	0	0	0	0	0	0	0	0	0	-	15
18,001	19,000	0	0	0	0	0	0	0	0	0	0	0	1	1	16
19,001	20,000	0	0	0	0	0	0	0	0	0	0	0	0	-	16
20,001	21,000	0	0	0	0	0	0	0	0	0	0	1	0	1	17
21,001	22,000	0	0	0	1	0	0	0	0	0	0	0	0	1	18
22,001	23,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
23,001	24,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
24,001	25,000	0	0	1	0	0	0	0	0	0	1	0	0	2	20
25,001	26,000	0	0	0	0	0	0	0	0	0	0	0	0	-	20
26,001	27,000	0	0	0	0	0	0	0	0	1	0	0	0	1	21
27,001	28,000	0	0	0	0	0	0	1	0	0	0	0	0	1	22
28,001	29,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
29,001	30,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
30,001	31,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
31,001	32,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
32,001	33,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
33,001	34,000	0	0	0	0	0	0	0	1	0	0	0	0	1	23
34,001	35,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
35,001	36,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
36,001	37,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
37,001	38,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
38,001	39,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
39,001	40,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
40,001	41,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
41,001	42,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
42,001	43,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
43,001	44,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
44,001	45,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
45,001	46,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
46,001	47,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
47,001	48,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
48,001	49,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
49,001	50,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 5/8 Inch Commercial - 14A

Exhibit
Schedule H-5
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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
50,001	51,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
51,001	52,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
52,001	53,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
53,001	54,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
54,001	55,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
55,001	56,000	0	0	0	0	0	1	0	0	0	0	0	0	1	24
56,001	57,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
57,001	58,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
58,001	59,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
59,001	60,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
60,001	61,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
61,001	62,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
62,001	63,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
63,001	64,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
64,001	65,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
65,001	66,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
66,001	67,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
67,001	68,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
68,001	69,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
69,001	70,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
70,001	71,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
71,001	72,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
72,001	73,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
73,001	74,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
74,001	75,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
75,001	76,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
76,001	77,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
77,001	78,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
78,001	79,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
79,001	80,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
80,001	81,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
81,001	82,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
82,001	83,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
83,001	84,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
84,001	85,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
85,001	86,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
86,001	87,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
87,001	88,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
88,001	89,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
89,001	90,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
90,001	91,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
91,001	92,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
92,001	93,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
93,001	94,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
94,001	95,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
95,001	96,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
96,001	97,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
97,001	98,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
98,001	99,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
99,001	100,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
	Totals	2	2	2	2	2	2	2	2	2	2	2	2	24	

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification — 1 Inch Commercial - 14A

Exhibit
Schedule H-5
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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
-	-	0	0	0	0	0	0	0	0	0	0	0	0	-	-
1	1,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
1,001	2,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2,001	3,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
3,001	4,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
4,001	5,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
5,001	6,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
6,001	7,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
7,001	8,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
8,001	9,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
9,001	10,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
10,001	11,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
11,001	12,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
12,001	13,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
13,001	14,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
14,001	15,000	0	0	0	0	0	0	0	0	0	0	0	1	1	1
15,001	16,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
16,001	17,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
17,001	18,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
18,001	19,000	1	0	0	0	0	0	0	0	0	0	0	0	1	2
19,001	20,000	0	0	0	0	0	0	0	0	0	0	0	0	-	2
20,001	21,000	0	0	0	0	0	0	0	0	0	0	0	0	-	2
21,001	22,000	0	0	0	0	0	0	0	0	0	0	0	0	-	2
22,001	23,000	0	0	0	0	0	0	0	0	0	0	0	0	-	2
23,001	24,000	0	0	1	0	0	0	0	0	0	0	0	0	1	3
24,001	25,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
25,001	26,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
26,001	27,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
27,001	28,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
28,001	29,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
29,001	30,000	0	1	0	0	0	0	0	0	0	1	0	0	2	5
30,001	31,000	0	0	0	0	0	0	0	0	0	0	0	0	-	5
31,001	32,000	0	0	0	0	0	0	0	0	0	0	0	0	-	5
32,001	33,000	0	0	0	0	0	0	0	0	0	0	0	0	-	5
33,001	34,000	0	0	0	0	0	0	0	0	0	0	0	0	-	5
34,001	35,000	0	0	0	0	1	0	0	0	0	0	0	0	1	6
35,001	36,000	0	0	0	0	0	0	0	0	0	0	0	0	-	6
36,001	37,000	0	0	0	0	0	1	0	0	0	0	0	0	1	7
37,001	38,000	0	0	0	0	0	0	0	0	0	0	1	0	1	8
38,001	39,000	0	0	0	1	0	0	0	0	0	0	0	0	1	9
39,001	40,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
40,001	41,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
41,001	42,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
42,001	43,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
43,001	44,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
44,001	45,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
45,001	46,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
46,001	47,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
47,001	48,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
48,001	49,000	0	0	0	0	0	0	0	1	0	0	0	0	1	10
49,001	50,000	0	0	0	0	0	0	0	0	0	0	0	0	-	10

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 1 Inch Commercial - 14A

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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
-	-	0	0	0	0	0	0	0	0	0	0	0	0	-	-
1	1,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
1,001	2,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2,001	3,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
3,001	4,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
4,001	5,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
5,001	6,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
6,001	7,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
7,001	8,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
8,001	9,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
9,001	10,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
10,001	11,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
11,001	12,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
12,001	13,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
13,001	14,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
14,001	15,000	0	0	0	0	0	0	0	0	0	0	0	1	1	1
15,001	16,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
16,001	17,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
17,001	18,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
18,001	19,000	1	0	0	0	0	0	0	0	0	0	0	0	1	2
19,001	20,000	0	0	0	0	0	0	0	0	0	0	0	0	-	2
20,001	21,000	0	0	0	0	0	0	0	0	0	0	0	0	-	2
21,001	22,000	0	0	0	0	0	0	0	0	0	0	0	0	-	2
22,001	23,000	0	0	0	0	0	0	0	0	0	0	0	0	-	2
23,001	24,000	0	0	1	0	0	0	0	0	0	0	0	0	1	3
24,001	25,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
25,001	26,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
26,001	27,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
27,001	28,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
28,001	29,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
29,001	30,000	0	1	0	0	0	0	0	0	0	1	0	0	2	5
30,001	31,000	0	0	0	0	0	0	0	0	0	0	0	0	-	5
31,001	32,000	0	0	0	0	0	0	0	0	0	0	0	0	-	5
32,001	33,000	0	0	0	0	0	0	0	0	0	0	0	0	-	5
33,001	34,000	0	0	0	0	0	0	0	0	0	0	0	0	-	5
34,001	35,000	0	0	0	0	1	0	0	0	0	0	0	0	1	6
35,001	36,000	0	0	0	0	0	0	0	0	0	0	0	0	-	6
36,001	37,000	0	0	0	0	0	1	0	0	0	0	0	0	1	7
37,001	38,000	0	0	0	0	0	0	0	0	0	0	1	0	1	8
38,001	39,000	0	0	0	1	0	0	0	0	0	0	0	0	1	9
39,001	40,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
40,001	41,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
41,001	42,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
42,001	43,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
43,001	44,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
44,001	45,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
45,001	46,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
46,001	47,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
47,001	48,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
48,001	49,000	0	0	0	0	0	0	0	1	0	0	0	0	1	10
49,001	50,000	0	0	0	0	0	0	0	0	0	0	0	0	-	10

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 1 Inch Commercial - 14A

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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
50,001	51,000	0	0	0	0	0	0	0	0	0	0	0	0	-	10
51,001	52,000	0	0	0	0	0	0	1	0	0	0	0	0	1	11
52,001	53,000	0	0	0	0	0	0	0	0	0	0	0	0	-	11
53,001	54,000	0	0	0	0	0	0	0	0	1	0	0	0	1	12
54,001	55,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
55,001	56,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
56,001	57,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
57,001	58,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
58,001	59,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
59,001	60,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
60,001	61,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
61,001	62,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
62,001	63,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
63,001	64,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
64,001	65,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
65,001	66,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
66,001	67,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
67,001	68,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
68,001	69,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
69,001	70,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
70,001	71,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
71,001	72,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
72,001	73,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
73,001	74,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
74,001	75,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
75,001	76,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
76,001	77,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
77,001	78,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
78,001	79,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
79,001	80,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
80,001	81,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
81,001	82,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
82,001	83,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
83,001	84,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
84,001	85,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
85,001	86,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
86,001	87,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
87,001	88,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
88,001	89,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
89,001	90,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
90,001	91,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
91,001	92,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
92,001	93,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
93,001	94,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
94,001	95,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
95,001	96,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
96,001	97,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
97,001	98,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
98,001	99,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
99,001	100,000	0	0	0	0	0	0	0	0	0	0	0	0	-	12
	Totals	1	1	1	1	1	1	1	1	1	1	1	1	12	

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification 2 Inch Commercial - 14A

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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
-	-	0	0	0	0	0	0	0	0	0	0	0	0	-	-
1	1,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
1,001	2,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2,001	3,000	0	0	0	0	0	0	0	0	0	0	0	0	-	-
3,001	4,000	0	0	0	0	0	0	0	0	1	0	0	0	1	1
4,001	5,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
5,001	6,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
6,001	7,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
7,001	8,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
8,001	9,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
9,001	10,000	0	0	0	0	0	0	0	0	0	0	0	0	-	1
10,001	11,000	0	0	0	1	0	0	0	0	0	0	0	0	1	2
11,001	12,000	0	0	0	0	0	0	0	0	0	0	0	0	-	2
12,001	13,000	0	0	1	0	0	0	0	0	0	0	0	0	1	3
13,001	14,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
14,001	15,000	0	0	0	0	0	0	0	0	0	0	0	0	-	3
15,001	16,000	0	1	0	0	0	0	0	0	0	0	0	0	1	4
16,001	17,000	0	0	0	0	0	0	0	0	0	0	0	0	-	4
17,001	18,000	1	0	0	0	0	0	0	0	0	0	0	0	1	5
18,001	19,000	0	0	0	0	0	0	0	0	0	0	0	0	-	5
19,001	20,000	0	0	0	0	0	0	0	0	0	0	1	0	1	6
20,001	21,000	0	0	0	0	0	0	0	0	0	0	0	0	-	6
21,001	22,000	0	0	0	0	0	0	0	0	0	0	0	1	1	7
22,001	23,000	0	0	0	0	0	0	0	0	0	0	0	0	-	7
23,001	24,000	0	0	0	0	0	0	0	0	0	0	0	0	-	7
24,001	25,000	0	0	0	0	1	0	0	0	0	0	0	0	1	8
25,001	26,000	0	0	0	1	0	0	0	0	0	0	0	0	1	9
26,001	27,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
27,001	28,000	0	0	0	0	0	0	0	0	0	0	0	0	-	9
28,001	29,000	0	0	0	0	0	0	0	0	0	0	1	0	1	10
29,001	30,000	0	0	0	0	0	0	0	0	0	0	0	0	-	10
30,001	31,000	0	0	0	0	1	0	0	0	0	0	0	1	2	12
31,001	32,000	0	0	0	0	0	0	0	0	1	0	0	0	1	13
32,001	33,000	0	0	0	0	0	0	0	0	0	0	0	0	-	13
33,001	34,000	0	0	0	0	0	1	0	0	0	0	0	0	1	14
34,001	35,000	0	0	0	0	0	1	0	0	0	0	0	0	1	15
35,001	36,000	0	0	0	0	0	0	0	0	0	0	0	0	-	15
36,001	37,000	0	0	0	0	0	0	1	0	0	1	0	0	2	17
37,001	38,000	0	0	0	0	0	0	0	0	0	0	0	0	-	17
38,001	39,000	0	0	0	0	0	0	0	0	0	1	0	0	1	18
39,001	40,000	0	0	0	0	0	0	0	0	0	0	0	0	-	18
40,001	41,000	0	0	0	0	0	0	1	0	0	0	0	0	1	19
41,001	42,000	0	0	0	0	0	0	0	0	0	0	0	0	-	19
42,001	43,000	0	0	0	0	0	0	0	0	0	0	0	0	-	19
43,001	44,000	0	0	0	0	0	0	0	0	0	0	0	0	-	19
44,001	45,000	0	1	0	0	0	0	0	0	0	0	0	0	1	20
45,001	46,000	0	0	1	0	0	0	0	0	0	0	0	0	1	21
46,001	47,000	0	0	0	0	0	0	0	0	0	0	0	0	-	21
47,001	48,000	0	0	0	0	0	0	0	0	0	0	0	0	-	21
48,001	49,000	0	0	0	0	0	0	0	0	0	0	0	0	-	21
49,001	50,000	0	0	0	0	0	0	0	0	0	0	0	0	-	21

Pine Water Company
Test Year Ended December 31, 2002
Customer Classification — 2 Inch Commercial - 14A

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Witness: Bourassa

Usage From:	Usage To:	Winter Month of Jan-02	Winter Month of Feb-02	Winter Month of Mar-02	Winter Month of Apr-02	Summer Month of May-02	Summer Month of Jun-02	Summer Month of Jul-02	Summer Month of Aug-02	Summer Month of Sep-02	Winter Month of Oct-02	Winter Month of Nov-02	Winter Month of Dec-02	Total Year	Cumul-ative Billing
50,001	51,000	1	0	0	0	0	0	0	0	0	0	0	0	1	22
51,001	52,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
52,001	53,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
53,001	54,000	0	0	0	0	0	0	0	0	0	0	0	0	-	22
54,001	55,000	0	0	0	0	0	0	0	1	0	0	0	0	1	23
55,001	56,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
56,001	57,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
57,001	58,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
58,001	59,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
59,001	60,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
60,001	61,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
61,001	62,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
62,001	63,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
63,001	64,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
64,001	65,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
65,001	66,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
66,001	67,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
67,001	68,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
68,001	69,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
69,001	70,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
70,001	71,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
71,001	72,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
72,001	73,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
73,001	74,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
74,001	75,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
75,001	76,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
76,001	77,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
77,001	78,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
78,001	79,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
79,001	80,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
80,001	81,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
81,001	82,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
82,001	83,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
83,001	84,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
84,001	85,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
85,001	86,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
86,001	87,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
87,001	88,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
88,001	89,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
89,001	90,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
90,001	91,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
91,001	92,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
92,001	93,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
93,001	94,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
94,001	95,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
95,001	96,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
96,001	97,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
97,001	98,000	0	0	0	0	0	0	0	0	0	0	0	0	-	23
98,001	99,000	0	0	0	0	0	0	0	1	0	0	0	0	1	24
99,001	100,000	0	0	0	0	0	0	0	0	0	0	0	0	-	24
	Totals	2	2	2	2	2	2	2	2	2	2	2	2	24	